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ABSTRACT

This report describes and evaluates the record of reform in several states that have revised their school finance systems since 1971. The introductory chapter provides an overview of reform's recent successes, shortcomings, and prospects. Six subsequent chapters offer a close look at its main features. Chapters 2 and 3 analyze new school aid legislation designed to place additional dollars behind high-cost children or to channel greater state aid into urban and rural areas. Chapters 4 and 5 examine the fiscal management of new reform laws, the former focusing on taxing and spending controls, the latter on revenue needs. Chapter 6 discusses the issues involved in developing a cost of education index that will enable more state aid to be directed to areas with extraordinary educational costs. Chapter 7 relates the issues involved in meshing of state and federal education aid programs to bring about more fiscal equity for local taxpayers and poor children. In sum, this booklet is intended to help the concerned state legislator and his staff to better understand how states can improve their basic school finance laws. (Author/IRT)

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School Finance Reform: A Legislators' Handbook

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Earl S. Mackey, Executive Director

School finance reform is a continuing responsibility for all State legislatures. Fair educational funding policies are essential if all children are to be provided with an equal educational opportunity and if the fiscal burdens for funding education are to be fairly apportioned among local taxpayers. Constitutional mandates, popular opinion, and a genuine concern for the disadvantaged require that States meet these goals in their school finance policies.

With increasing frequency, States are revising their school finance systems to provide more fiscal equity for students and taxpayers. Yet, this is a job that will never be fully completed. Therefore, the National Conference of State Legislatures (NCSL) offers State legislators this handbook which describes the accomplishments and shortfalls of several of the major State school finance reforms enacted since 1971. I am confident that a careful reading of this handbook will give the interested State legislator and concerned citizen the information that he or she needs to build fairer school finance policies for the future.

Representative Tom Jensen, President
National Conference of State Legislatures

Preface

The Education Task Force of the National Conference of State Legislatures (NCSL) has long advocated fundamental reform of this country's school finance systems. In its previous publications, *A Legislator's Guide to School Finance*, and *New Programs of State School Aid*, the Task Force has set forth many of the goals for fairer school finance policies. This handbook continues in that vein, analyzing the main fiscal features of several new school finance reform laws enacted since 1971.

The record of State school finance reform in the last several years has been a positive one. State funding for education has increased, property tax burdens are now better equalized and there is less strain on the property tax in many cases. New finance formulas are gradually putting more money into large urban centers and more fiscal backing for disadvantaged children is occurring. All of this has been accomplished without loss of local control of education.

However, States must do more to further improve the equity of their finance systems. Minimum grants to wealthy districts must be dropped, expenditure limits that hurt poor districts should be modified, and still more attention should be paid to the financial and educational needs of large cities and depressed rural areas.

The task of building more equity into school finance however cannot be carried out by States alone. Federal education aid must be expanded; local school districts must do more to halt rising school costs and improve the productivity of their schooling practices, and the general public must continue to back the fiscal redistribution that is contained in the revenue and expenditure policies of new school finance laws. Otherwise, the future of continued school finance reform looks bleak indeed.

State legislatures are constitutionally responsible for the fiscal equity of their school finance systems. Consequently, we urge State legislators and their staff to continue their efforts to improve the fairness of State school finance policies. This handbook shows that school finance reform is both possible and desirable. Yet, we know first hand that school finance reform is not for the faint-hearted. Many State legislators have faced up to that fact in the last several years; we urge more of our colleagues to do so in the future.

Initially conceived jointly with the National Urban Coalition School Finance Reform Project, this Handbook has been made possible by contract funding provided by the National Institute of Education.

Senator Joseph C. Harder, Chairman
Senator Gilbert E. Bursley, Vice-Chairman
Senator Mike O'Connor, Secretary

Education Task Force
National Conference of State Legislatures

Acknowledgments

It is with great pleasure that the National Institute of Education greets the publication of this document. It represents the culmination of NIE's first modest effort to provide support for "goal oriented, school finance research" as directed by the Congress one year ago. At the same time, it signals the beginning of a more ambitious and far reaching program of targeted NIE support for state legislatures to undertake school finance reform research. As this booklet is being distributed to the Nation's state legislative leaders, NIE is providing additional support to the NCSL/LEAP project for specific school finance reform research in several states.

Recent court decisions—from *Serrano* to *Robinson*—in addition to mandating school finance reform, remind us that the finance and organization of public education is uniquely the province of the state; and therefore, the locus of school finance decision making will for the remainder of the decade reside in state legislatures. It is appropriate then, that NIE's first venture in school finance research begin with state legislatures, the deliberative bodies that must decide the future of school finance reform.

We at NIE hope this publication will prove to be a useful reference work, as well as a stimulus to both debate and action in the field of school finance reform.

Denis P. Doyle, Chief
School Finance &Organization
National Institute of Education

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Chapter I

State School Finance Reform in the 1970's

John J. Callahan—William H. Wilken
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National Conference of State Legislatures
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A. Introduction

Nothing is more symptomatic of the recent renaissance in state government than the new role of states in public school finance. States in every region since 1970 have been compelled to assume a much broader responsibility for funding public education due to the convergence of several powerful forces. Local property taxes have mounted as school employees and spokesmen for children with high-cost educational needs became increasingly effective in winning greater dollar outlays. Long-simmering dissatisfaction with local property tax burdens has erupted into well-orchestrated campaigns for state relief, especially in areas with large concentrations of farmers or elderly persons. State revenue collections have fluctuated drastically; with fiscal surpluses first generating new state budget commitments while recently lagging collections have created strong pressures for greater state budget control. But most important of all, both state and federal courts have rendered decisions which have given the proponents of school finance reform a powerful lever for change. From the landmark *Serrano* decision of 1971 to more recent rulings in *Robinson* and *Horton*, the courts have made it clear: public school finance laws which make the quality of a child's education dependent on local wealth are constitutionally suspect and vulnerable to judicial challenge.

The central features of the new state role in public school finance have been fourfold. First, most states with new laws have assumed substantial increases in raising public school dollars, by tapping budget surpluses, and by raising the rates of traditional state taxes. Second, many of the states with new laws have cut local school tax rates and in several instances have reduced property tax bills substantially. Third, all of the school finance reform states of the last five years have taken steps to insure a considerably closer fit between the distribution of state school aid and the presence of unusual educational needs or costs, these steps being most visible in the comprehensive pupil weighting systems implemented in five states. And finally, the great majority of post-*Serrano* reform states have imposed systematic controls on the growth of local school budgets, either by setting strict limits on local taxes or by establishing ceilings on school expenditures.

This report describes and evaluates the record of reform in several states which have revised their school finance systems since 1971. This introductory chapter provides an overview of reform's recent successes, shortcomings, and prospects. Six subsequent chapters offer a close look at its main features. Chapters II and III analyze new school aid legislation designed to place additional dollars behind high-cost children or to channel greater state aid into urban and rural areas. Chapters IV and V examine the fiscal management of new reform laws, the former focusing on taxing and spending controls, the latter on revenue needs. Chapters VI and VII deal with two new issues that state legislators are facing in their efforts to build more equitable school finance systems. Chapter VI discusses the issues involved in developing a cost of education index that will enable more state aid to be directed to areas with extraordinary education costs. And Chapter VII relates the issues involved in meshing of state and federal education aid programs to bring about more fiscal equity for local taxpayers and poor children. In sum, this booklet is intended to help the concerned state legislator and his staff to better understand how states can improve their basic school finance laws.

B. School Finance Reform: The Accomplishments and Shortfalls

The issues faced by state legislators, courts and chief executives in reforming education finance are complex and difficult to resolve without considerable political compromise. The outcomes of this bargaining process, however, have been basically positive and progressive. New finance laws, on balance, have improved the equity of this nation's school finance system. School property taxes have been reduced in many poorer communities and school tax burdens have been distributed more equitably among local taxpayers. State-imposed school tax and budget controls have kept school taxes down and expenditure increases manageable in a time of declining enrollments.

At the same time, reform has permitted a greater than average increase in school expenditures in many poor school districts. More state monies have been allocated to children who are costly to educate, and many states have developed new aid programs to meet the pressing school finance needs of urban centers and rural areas. In short, poor taxpayers and educationally disadvantaged children have been the main beneficiaries of new school finance laws.

But the record of school finance reform needs improvement. In some cases, school tax and expenditure controls have prevented bridging expenditure gaps between rich

and poor communities. More flexible controls to reduce this expenditure imbalance are still required in many states. Better funded categorical programs for the exceptional educational needs of disadvantaged in urban and rural areas are still urgently needed in some states. More sophisticated aid formulas that consider income poverty and excessive non-educational tax burdens also would help hard-pressed urban areas.

States also could continue to improve the fiscal equity of their school aid policies by repealing those aid provisions which provide minimum aid to all districts regardless of their wealth. These policies still compromise the fiscal equity of many state aid plans. Finally, states need to exercise considerable supervision of their aid systems to insure that aid is directed to communities that need it most. To that end, many states will have to encourage poorer communities to take the maximum fiscal advantage of new aid reform laws. While most new reform laws have not diminished local control of education, states still must face up to the responsibility of helping poorer districts attain the maximum benefits of their state aid laws.

School Property Tax Reduction. Reduction of school property tax burdens has been the most dramatic and visible achievement of new finance reform laws. At least five states with new funding legislation—Colorado, Kansas, Minnesota, North Dakota, and Wisconsin—have been experiencing absolute reductions in local school revenue collections (almost wholly property taxes) at a time when the collections in many non-reform states have been going up several percentage points a year. Wisconsin, for example, took steps which brought $92 million in local school property tax relief between 1973 and 1974. Minnesota, as Table 1 shows, embraced legislation which allowed a typical household to reduce its combined state income and local property tax bill by about 4 percent between 1971 and 1973. Similarly, Arizona adopted new school funding legislation which permitted property taxes on a $20,000 house in Phoenix to fall by 16.3 percent between 1974 and 1975.

Property tax burdens not only have been reduced in some reform states, but also have been made much more equitable. Prior to the new laws, taxpayers in poor communities often paid well-above-average tax rates for well-below-average quality school services. Today this condition is less prevalent. Consider, for example, the case of Wisconsin. In the year before its reform law went into effect, the state's 37 most property-poor K-12 school districts were able to have current expenditures of $54.61 per pupil for every mill of operating tax effort. The 37 most property-rich K-12 school districts, in contrast, were able to have current expenditures of $63.34 per pupil for the same tax effort (see Appendix Tables W-1 through W-7 for definitions). But in the year Wisconsin's new law went into effect, the ability of the richest and poorest school districts to spend for education was almost completely equalized. In 1974, one mill of operating tax effort allowed the wealthiest 27 school districts to have current expenditures of $84.40 per pupil. And in the 37 poorest school districts, one mill of operating tax effort permitted current expenditures of $85.01 per pupil.

The story is equally graphic in Michigan. In 1972-73, the year before reform, a 25 mill tax rate in the state's richest and poorest communities would have yielded about a $239 per pupil difference in their revenues. When Michigan's new law went into effect in 1973-74, that disparity was reduced to $134 per pupil as Table 2 indicates. Michigan's tax relief of 1973-74, however, was not without considerable precedent. Michigan had taken significant steps to reduce property tax disparities ever since the late 1960's, most notably its "municipal overburden" property tax relief program first instituted in 1964 and expanded ever since. Under this program, Michigan school districts are entitled to special state assistance to the degree its non-educational property taxes exceed the state average by greater than 125 percent.

Not just in Michigan but in several other states, cities have been among the prime beneficiaries of property tax relief provided through school finance reform. Between 1973 and 1974, Kansas City and Topeka were able to cut their educational property tax rates by an average of 11 percent, while Kansas school districts statewide were able to achieve, as Table 3 shows, only about a 1 percent rate reduction (see Appendix A, Table K-1 through K-7 for definitions). Similarly, almost all Colorado cities except Den-

TABLE 1

ESTIMATED AVERAGE STATE PERSONAL INCOME TAX AND LOCAL PROPERTY TAX PAID BY MINNESOTA HOUSEHOLDS WITH AN INCOME OF $10,000 TO $11,000 AND A HOME VALUED AT $21,000 1971 TO 1973*

Item	Average Tax Payment 1971	1972	1973	Pct. Change 1971-1973
State Personal Income Tax on $10,000 to $11,000 Income	$384	$435	$435	13.3%
Local Property Tax on $21,000 Home	489	425	404	-17.4
Total	$873	$860	$839	- 3.9

*Minnesota Legislature, 1975

TABLE 2

EVOLUTION OF IMPACT OF MICHIGAN STATE AID FORMULA

Year	District (SEV) Per Pupil	20 Mill Districts	Difference Between High & Low SEV	22 Mill Districts	Difference Between High & Low SEV	25 Mill Districts	Difference Between High & Low SEV	27 Mill Districts	Difference Between High & Low SEV	30 Mill Districts	Difference Between High & Low SEV
1969-70	$10,000	$549.00		$569.00		$ 599.00		$ 619.00		$ 649.00	
	20,000	628.00		668.00		728.00		768.00		828.00	
	30,000	738.00		798.00		888.00		948.00		1,038.00	
	40,000	848.00	$299.00	928.00	$359.00	1,048.00	$449.00	1,128.00	$509.00	1,248.00	$599.00
1972-73	$10,000	$715.00		$725.00		$ 765.00		$ 785.00		$ 815.00	
	20,000	724.00		764.00		824.00		864.00		924.00	
	30,000	764.00		824.00		914.00		974.00		1,064.00	
	40,000	804.00	$ 89.00	884.00	$159.00	1,004.00	$239.00	1,084.00	$299.00	1,204.00	$389.00
1973-74	$10,000	$760.00		$836.00		$ 866.00		$ 886.00		$ 916.00	
	20,000	760.00		836.00		896.00		936.00		996.00	
	30,000	760.00		836.00		926.00		986.00		1,076.00	
	40,000	800.00	$ 40.00	880.00	$ 44.00	1,000.00	$134.00	1,080.00	$194.00	1,200.00	$284.00
1974-75	$10,000	$780.00		$858.00		$ 975.00		$ 995.00		$1,025.00	
	20,000	780.00		858.00		975.00		1,015.00		1,075.00	
	30,000	780.00		858.00		975.00		1,035.00		1,125.00	
	40,000	800.00	$ 20.00	880.00	$ 22.00	1,000.00	$ 25.00	1,080.00	$ 85.00	1,200.00	$175.00

Source: Dr. James L. Phelps, "New Equity in Michigan School Finance:Second Year Results." Unpublished manuscript, Office of the Governor, 1975.

ver and Colorado Springs have experienced reductions in school tax rates well in excess of the state average. Between 1973 and 1974, for example, the school tax rate statewide fell by about 2 percent, but dropped more than 9 percent in Boulder, by more than 18 percent in Greeley, and by over 23 percent un Grand Junction. Reform in Illinois brought an increase in most urban tax rates, but by a substantially smaller degree than statewide. From 1973 to 1974, the average school tax rate statewide went up by 15 percent, but the rates in Peoria and Springfield, for example, increased by no more than 7 percent (see Appendix A, Tables I-1 through I-8 for definitions).

It should be noted, however, that the significance of many recent tax rate changes is clouded considerably by the very rapid shifts that have been taking place in real estate values, and which may or may not be reflected in local assessments. As Table 4 shows, for example, reported property values in Wisconsin increased greatly between 1973 and 1974, the same time that the state was implementing its new school finance law. In contrast, reported values in Illinois grew hardly at all even though the state's substantial agricultural lands were inflating in value at an unprecedented rate.

As states have taken steps to reduce school property taxes, they also have instituted measures to keep them stabilized in the future. With a handful of notable exceptions, most school finance reform states of the 1970's have made tax and/or expenditure limitations on local school districts an integral part of their new legislation. Tax ceilings are now in place, for example, in Florida, New Mexico, North Dakota and Minnesota. Related measures which discourage high local tax effort are in effect in Maine, Utah and Wisconsin. And expenditure lids are in operation in Colorado, Iowa, Kansas and several other states.

The new tax and expenditure controls on local school districts differ substantially in their stringency. In New Mexico, for example, the tax rate limitation is absolute; no exceptions are allowed. In some states, Colorado and Wisconsin, for example, outlays can be increased over prescribed levels by appeal to state school budget review committees. In other states, such as California and Minnesota, budgets can be altered by appeal to local voters through the referendum process, while several states incorporate multiple escape routes.

Local success in overcoming the new budget controls has varied substantially. Budget overrides tied to referenda have been the hardest to achieve, but not invariably so. Iowa, for example, has experienced only one successful budget override election in five years. But California has witnessed so many that the referendum escape clause proved a major factor in the so-called "second *Serrano*" case which declared the state's response to the first *Serrano* decision unconstitutional. And just as much variability is evident in the case of other types of budget limitations. Colorado and Wisconsin school districts, for example, have been fairly successful in their appeals to their respective state budget review committees. Iowa school districts, however, seem to have found appeals somewhat more difficult, often gaining very little additional budgetary leeway for their effort.

The Need For More Flexible Expenditure Control. Unfortunately, state tax and expenditure limits on local school districts appear to be constraining the ability of poor communities to catch up to the expenditure levels of wealthy communities. These fiscal constraints have been adopted in order to insure that new state aid would bring about lo- school property tax relief and that new aid programs would not result in massive and unmanageable jumps in school expenditures. While the intent of these controls is understandable and acceptable to the general public, they may reduce the equality of educational opportunity that is offered by some new state finance plans. As a result, the same districts that exhibited very low educational expenditures before reform continue to spend at fairly low levels after reform.

Indeed, the specific structure of expenditure controls in states such as California, Kansas, Wisconsin, and Colorado may prevent poor local districts from ever catching up to the spending levels of wealthier units. Table 5 shows, for example, per student expenditures in Kansas' lowest-wealth school districts exhibited less growth than the per student expenditures in its highest-wealth communities. Moreover, initial state experience with fiscal controls reveals that rich rather than poor districts are more apt to seek exemptions from such fiscal restraints. Rich districts in California have been more successful in their override elections than poorer units. They also have been able to raise expenditures at these elections to a greater extent than poorer jurisdictions. Wealthier districts in Wisconsin have been more apt to seek and be granted cost control exemptions than poorer units though the average cost override for all districts was usually only $2500 per request. While these expenditure and cost controls have enjoyed considerable public popularity, state lawmakers must see to it that they do not curtail the ability of poorer districts to substantially raise the level of their educational offerings.

Greater Educational Equity. Notwithstanding tax and expenditure limitations, the state school finance reforms of the 1970's have equalized educational opportunity to a greater extent than in years past. As Table 6 suggests, however, the course of change has been uneven (see Appendix A for greater detail). Some states—like Florida, Iowa, and Michigan—have adopted legislation which has substantially narrowed the expenditure gap between rich and poor communities. A decade ago, for example, Iowa had one of the most disparity-ridden school finance systems in the nation. This year there is no more than a 20 percent variation in the per student general fund expenditures in 90 percent of its school districts. And Michigan shows signs of following a similar pattern. Between 1973 and 1974, its 52 lowest spending school districts experienced an $89 per student increase while its 52 highest-spending districts had no growth.

Reforms adopted by some states will reduce expenditure disparities over a longer period. Minnesota's revisions of 1971, for example, will not begin to narrow the range between the highest and lowest spending districts until the present year, having first emphasized equalization among the bulk of districts rather than its spending "outliers." Similarly, Illinois' new law has had little consequence for expenditure disparities in general, allowing expenditures in the states' poorest school districts actually to rise

TABLE 3

SCHOOL OPERATING TAX RATES PER $1000 ASSESSED VALUATION IN UNIFIED SCHOOL DISTRICTS OF SEVEN STATES BEFORE AND AFTER REFORM*

	School Operating Tax Rates per $1,000 Assessed Valuation						
Level and Year	**Florida**	**Illinois**	**Kansas**	**Michigan**	**New Mexico**	**Utah**	**Wisconsin**
Year Before Reform							
Minimum	6.80	$10.74	4.27	$10.01	$ 2.22	$17.60	$ 6.33
First decile	7.45	18.47	10.07	15.20	2.22	21.40	11.08
Median	10.00	25.97	21.56	22.25	4.44	28.23	15.25
Tenth decile	10.14	41.75	40.67	31.83	4.56	54.36	19.53
Maximum	10.85	55.81	75.23	36.74	5.00	35.30	28.79
Year After Reform							
Minimum	6.00	10.90	3.51	11.38	1.11	20.46	4.08
First decile	6.74	17.53	12.22	16.73	8.06	22.43	7.76
Median	10.00	24.81	21.77	22.75	11.15	28.23	11.39
Tenth decile	10.00	39.55	34.27	38.09	11.15	34.90	15.83
Maximum	10.00	56.03	54.31	37.43	11.15	36.18	23.36
Before to After: Pct Change							
Minimum	-11.8	1.5	-17.8	13.6	-49.9	16.3	-35.5
First decile	- 9.5	-5.1	21.4	10.1	262.3	4.8	-30.0
Median	0	-4.5	1.0	2.2	150.8	0	-25.3
Tenth decile	- 1.4	-5.3	-15.7	19.7	144.1	1.6	-18.9
Maximum	- 7.8	.4	-27.8	1.9	123.0	2.4	-18.9

*See Tables in Appendix A for definitions.

**New Mexico's tax rates the year after reform should be interpreted cautiously since they may reflect certain non-educational taxes.

TABLE 4

ASSESSED VALUATION PER PUPIL AT SELECTED LEVELS IN UNIFIED SCHOOL DISTRICTS OF SEVEN STATES BEFORE AND AFTER REFORM*

	Assessed Valuation per Pupil						
Level and Year	**Florida**	**Illinois**	**Kansas**	**Michigan**	**New Mexico**	**Utah**	**Wisconsin**
Year Before Reform							
Minimum	$ 9,676	$ 3,153	5,156	$ 2,866	2,082	3,441	4,747
First decile	14,181	10,055	10,380	9,447	3,104	4,141	18,553
Median	22,290	23,312	24,741	16,690	11,885	8,178	32,430
Tenth decile	73,095	54,442	68,155	54,131	50,823	16,990	64,980
Maximum	96,697	109,250	136,251	297,041	57,565	19,223	153,780
Year After Reform							
Minimum	$ 14,263	3,059	5,562	3,383	2,153	3,794	5,402
First decile	16,872	10,193	11,252	10,436	3,653	4,545	25,260
Median	34,681	24,000	27,955	18,451	12,868	8,839	41,630
Tenth decile	95,379	54,687	78,722	54,676	57,861	17,462	83,100
Maximum	116,012	124,919	156,614	149,977	105,052	20,765	200,100
Before to After: Pct Change							
Minimum	47.4	-3.0	7.9	18.0	3.4	10.3	13.8
First decile	18.9	1.4	8.4	10.5	18.0	9.8	36.2
Median	55.6	3.0	13.0	10.6	8.3	8.0	28.4
Tenth decile	30.4	.4	15.5	0.8	13.8	2.8	27.9
Maximum	20.0	14.3	11.3	-49.5	7.7	8.0	30.1

*See Tables in Appendix A for definitions

TABLE 5

EXPENDITURE, WEALTH, AND STATE AID DATA OF KANSAS SCHOOL DISTRICTS BY WEALTH DECILE, 1973-74 & 1974-75

Wealth Decile	1973-74 Wealth/Pupil	1973-74 General Fund Budget/Pupil	1973-74 State Aid/ Pupil	1974-75 Wealth/Pupil	1974-75 General Fund Budget/Pupil	1974-75 State Aid/ Pupil
1	$14,904	$ 700	$429	$16,120	$ 784	$501
2	20,243	780	420	23,206	868	501
3	23,283	764	375	27,198	870	440
4	26,319	839	384	31,087	923	409
5	29,604	864	351	34,972	985	389
6	32,577	943	330	39,171	1,007	342
7	37,013	992	301	42,250	1,101	281
8	43,475	1,092	236	52,796	1,186	174
9	52,002	1,155	66	64,339	1,299	42
10	75,705	1,460	0	89,476	1,549	0

(Total Districts = 310)

Source: NCSL computations from school finance data supplied by the Kansas Department of Education

TABLE 6

CURRENT EXPENDITURE NET OF TRANSPORTATION PER PUPIL AT SELECTED LEVELS IN UNIFIED SCHOOL DISTRICTS OF SEVEN STATES BEFORE AND AFTER REFORM*

Level and Year	Florida	Illinois	Kansas	Michigan	New Mexico	Utah	Wisconsin
	Current Expenditure Net of Transportation Per Pupil						
Year Before Reform							
Minimum	585	$ 721	497	$ 697	623	516	$ 562
First decile	659	808	613	785	687	565	651
Median	777	970	855	938	792	644	773
Tenth decile	1,028	1,291	1,520	1,501	1,358	1,031	1,031
Maximum	1,199	2,046	2,192	7,448	1,552	1,075	1,535
Year After Reform							
Minimum	645	762	609	725	709	526	663
First decile	725	893	675	874	783	619	751
Median	857	1,044	897	1,042	915	698	896
Tenth decile	975	1,434	1,528	1,499	1,587	1,210	1,191
Maximum	1,240	2,443	2,211	4,003	1,706	1,296	1,642
Before to After: Pct. Change							
Minimum	10.3	5.7	22.5	4.0	13.8	1.9	18.0
First decile	13.1	10.5	10.1	11.3	14.0	9.6	15.4
Median	10.3	7.6	4.9	11.1	15.5	8.4	15.9
Tenth decile	- 5.6	11.1	.5	- 0.1	16.1	17.4	15.5
Maximum	3.4	19.4	3.7	-46.3	9.9	20.6	7.0

*See Tables in Appendix A for definitions.

less than in its richest school districts (see Appendix A, Table I-2 for details). Illinois' legislation, however, has increased expenditure equalization among one class of school districts, elementary districts, and has channeled substantially greater resources to communities impacted by large concentrations of poverty pupils.

Supplementary aid for communities in Illinois with large concentrations of poverty pupils symbolizes perhaps the most important aspect of the recent reform laws when viewed from the perspective of educational equity. Increasingly, the new laws have put dollars behind the long-standing idea that some children cost much more to educate than others.

Several reform states—Florida, New Mexico and Utah among others—have adopted pupil weighting systems that guarantee additional state funding for children that are hard or costly to educate. Thus, Florida, New Mexico, and Utah all pledge from 2 to 4 times more funding for the education of special education children, 1.5 more for bilingual education, and 1.3 more for education of primary

school students. New York now provides 25 percent additional state funds for children that are found to be educationally disadvantaged on the basis of statewide standardized tests. New aid programs in Minnesota have raised $150 in additional per pupil funding for Title I pupils in Minneapolis and St. Paul. In a similar manner, rural states have provided the necessary support for many sparsely settled or isolated school districts, preventing major increases in local school taxes and perhaps premature consolidation. Finally, a few states have tried to equalize the purchasing power of the school dollar from one community to the next. Cost of living indices, for example, have been adopted by Florida, and have brought from 7 to 10 percent more school aid to urban communities. Somewhat in the same vein, some reform states have adopted training and experience "adjustments" as an integral part of their basic school aid formulas. Under such adjustments, some school districts in Utah and New Mexico, for example, receive up to 11 percent greater aid than they would obtain without them.

Several states have also improved the equity of their aid policies by measuring the local fiscal capacity on the basis of both property values and income. This permits states to channel considerably more monies to communities that are both income and property poor—jurisdictions that have a limited tax base and that also house poor populations unable to afford additional school taxes. Connecticut's new aid formula, when fully funded, will give poor Birdgeport an additional $1700 per pupil in state aid while wealthy Greenwich would receive no state funds. Many rural communities in Kansas have benefited by similar measures that recognize the relative income poverty of local residents.

While some reform states have addressed educational costs and needs by adjustments in their basic aid formulas, others have aimed at these problems through expanded use of categorical grants. New categorical programs for compensatory education have been established in Virginia, Wisconsin, California and Utah. In Michigan revenues for categorical aid programs will equal those going into the general aid formula in the coming year. Nationwide, state special education funding has increased from $900 million to $2.2 billion. Bilingual education programs have also been more prominent, with Colorado, Texas, Illinois and New Mexico now adding major new programs.

The Need for Even More Equalizing School Aid Policies. New finance reforms have been favorable to some central cities and poorer rural areas. Special provisions, in many state reform laws provide additional funding to these areas. Without these adjustments, many urban and rural areas would have had to raise rather than lower taxes as a result of reform or cut back their educational expenditures.

At the same time, it is clear that states could do more to meet the pressing fiscal needs of urban centers and rural hamlets. Only one state—Michigan—recognizes the fact that high non-school taxes curtail the ability of large cities to finance their education needs. Yet, if the program were fully funded it would receive three or four times that amount. Not all reform states have developed categorical grants for funding compensatory or bilingual education programs. Nor have all states followed the lead of Minnesota and Illinois in making additional state aid available to a district when its concentration of hard-to-educate pupils exceed state average. Moreover, no reform state has yet to fully perfect a cost-of-education index that will channel more state aid to areas where it takes more money to provide a quality education. Only Florida with its cost of living adjustment comes close.

Rural areas could be treated more fairly in some state school aid plans. While many small districts are heavily subsidized in such reform states as Utah and New Mexico, several states do not make special provisions to meet the special funding needs of these areas. This contrasts with Kansas which permits a higher level of reimbursable expenditure in these small units, and which may prevent premature consolidation of these units which often provide a high-quality education to their students. Where rural areas have not been given special status in new aid laws—in Wisconsin and Michigan, for example—they have not always been able to expand their school expenditures as fast as other, more suburban areas which have a stronger tax base and a greater inclination to raise school taxes to bring in additional state aid.

Continuing Obstacles to Equity. Efforts to improve school finance equity in coming years will be undermined unless states are better able to come to grip with the problem of ineffective or impotent state aid administration. Unfortunately, there are some signs that recent improvements in state school finance legislation are being frustrated by the inability or failure of state administrators to ensure that poor communities take maximum advantage of new funding opportunities. In Utah and Florida, for example, many poor rural school districts have classified very low percentages of their pupils in high-cost special education programs despite evidence that they have high concentrations of special needs pupils.

In New Mexico, while poorer rural districts fare better in pupil weighting systems than wealthier urban areas, they have been unable or unwilling to attract more qualified teaching personnel, and this has resulted in a reduction of their state aid entitlements. Many poorer school districts in Michigan have not raised school taxes to bring in substantial additional state aid for their children. In short, poorer districts have not always partaken of all the benefits of new state aid programs. States must find new ways to encourage them to do so whether it be through measures to further relieve undue school tax burdens or through preferential aid programs for very poor districts.

While many poor school districts have failed to avail themselves of reform's benefits, some communities have made a concerted effort to take all of its benefits—and then some. In Florida and Utah, for example, a number of localities attempted to classify pupils in high cost programs at a rate far above the state average. Thus, Florida, New Mexico, and Utah have put "caps" on the number of pupil weightings that the state will fund to prevent misclassification of students for additional state aid. Wisconsin and Michigan have made revisions in their aid formulas that make it more difficult for wealthier districts to raise additional funding through higher school tax rates, and several states are analyzing their expenditures controls to make sure that wealthier districts do not receive undue favoritism from state budget review boards.

However, the cause of improved school finance equity in some states will be frustrated additionally by the continuing presence of flat grants even though this practice has been deemed unconstitutional in state court. Connecticut continues its $250 per pupil flat grant program even with the adoption of a new aid formula. Kansas has dropped minimum aid payments to its districts but rebates all districts 15 percent of the state income tax collected there. Michigan, Wisconsin, Maine and Montana, however, have demonstrated that minimum aid payments can be done away with altogether.

Michigan now denies formula aid to 61 school districts and Wisconsin allots no general aid to 16.

Some states have even gone one step further and required very wealthy districts to pay some of their local tax collections to the state for redistribution to poorer districts. Maine has collected nearly $7 million in "excess" levies for poorer school districts. Wisconsin's first "recapture" will occur in spring of 1977 and result in $3.4 million. Recapture provisions are also on the books in Montana and Utah where mineral-rich school districts will contribute to state school equalization funds. In short, states cannot afford to continue unnecessary subsidies to rich districts that have little need for such aid.

Increased State Revenue Without Loss of Local Control. Significantly, little of the increased taxpayer and pupil equity of the new school finance formulas would have been possible were it not for the ability and willingness of the reform states to assume a greater degree of responsibility for funding public schools. As Table 7 indicates, the state proportion of state and local school funding has increased during the last three or four years from about 39 percent to approximately 51 percent. This growth in state responsibility, however, has been achieved for the most part without an increase in state taxes. Most of the increase has been financed out of treasury surpluses which, unfortunately, are now limited almost exclusively to the nation's agricultural and energy-producing states. Some of the increase—in Montana, for example, was financed by substituting statewide property taxes for local taxes. But only Arizona, Florida, and Minnesota have been forced to raise state levies to finance their new laws.

As reform states have assumed increasing responsibility for funding public schools, some have been perhaps naturally apprehensive that additional state dollars would entail a substantial erosion of local control over education. This, however, has not been the case. In state-after-state, there has been a conscious attempt not to impinge on local educational decisionmaking.

New pupil weighting programs in Florida, for example, simply commit the state to fund a high level of cost for hard-to-educate pupils when a local district decides to serve such children. This removes an important local constraint against providing high-cost programs. Similarly, the law's new emphasis on school-site budgeting gives more programmatic authority to the local school principal and brings educational decision-making even closer to the local community. In states with expenditure controls—Colorado, Kansas and Wisconsin particularly—state budget review boards exempt local school districts from expenditure controls when they have to meet extraordinary educational costs mandated by state law or when these controls would severely disrupt the quality of their educational programs. Virtually all school districts in Colorado have received full or partial exemptions from controls while a substantial number in Kansas and Wisconsin have also been given relief from state controls that would otherwise have reduced the quality of local educational programs.

TABLE 7

STATE PROPORTION OF TOTAL STATE-LOCAL SCHOOL FUNDING PRE- AND POST-REFORM PERIODS—18 SCHOOL FINANCE REFORM STATES

State	Date Of Reform	State Share of Total State-Local Expenditures In: Last Year Before Reform	First Year After Reform
Arizona	1974	42.0%	54.6%
California	1972	36.7	45.3
Colorado	1973	28.9	39.9
Connecticut	1975	24.2	N.A.
Florida	1973	61.3	62.5
Illinois	1973	39.3	44.3
Indiana	1975	36.2	N.A.
Iowa**	1971	32.5	36.3
Kansas	1973	29.8	47.7
Maine*	1973	38.6	38.5
Michigan	1973	49.4	52.9
Minnesota	1971	50.7	60.9
Montana	1973	27.5	43.8
New Mexico	1974	74.5	77.8
North Dakota	1973	32.2	46.1
Texas	1975	46.1	N.A.
Utah	1973	58.4	61.9
Wisconsin	1973	31.8	39.0
18 State Average		39.0	51.0 est.

*Reflects an $83,000,000 reported State appropriation rather than $100,000,000 as reported by State Commissioner of Education.

**Iowa's law has been phased-in over several years. In 1975-76, the state share will exceed 50 percent.

Source: National Education Association Research Division, *Estimates of School Statistics*, selected years and selected state data from the N.C.S.L. L.E.A.P. School Finance Data base.

But perhaps most important of all, it is becoming evident that increased state funding responsibility has had the effect of making local school policy arguments focus much more on educational issues than tax issues. Unlike in the past, for example, Florida school board elections revolve almost wholly around educational questions; taxes cannot be an issue since they are no longer subject to wide local discretion.

C. *School Finance Reform: The Future Prospects.*

The future prospect for school finance reform is uncertain. Difficult economic conditions, federal aid policies and mounting public concern about the effectiveness of schools all combine to make it more difficult for a state to revise their school aid policies. Unless these forces shift, states may be unable or unwilling to undertake new finance policies which will reinforce recently enacted taxing and spending revisions.

The Shaky Conditions of State Finances. The single

greatest obstacle to broad-based reform is the shaky condition of state government finances. Few states would have enacted the school finance revisions of the early to mid-1070's had they lacked the unprecedented budgetary surpluses of the period. Reform almost certainly would have been limited to the handful of states, like California and Kansas, where there were compelling court mandates for change, or it would have taken a very different form, addressing budget limitations and property tax relief almost exclusively. Widespread redistribution of state dollars and the general leveling-up of school expenditures would have been out of the question.

It is hardly a coincidence that the highwater mark of the school finance reform movement over the last five years occurred in 1972 and 1973, the first time that the states had experienced a surplus in their general government accounts since 1947. This surplus, however, is now depleted or entirely eliminated in all but a handful of states, mainly those like Texas or Louisiana that are benefiting from swelling tax collections, or those like Iowa or Minnesota that have a well-balanced economic base, bolstered by a strong agricultural sector.

States are responding to their lagging revenue collections for the most part either by deferring major school finance reforms altogether or by approving substantial budget reductions. Some states, particularly Massachusetts and New York, have been hit so hard by budget deficits that school finance reformers have shelved any thought of mounting a serious revision effort for at least two years. Other states like Connecticut and Georgia have responded to their budgetary reversals by enacting new reforms but deferring new funding indefinitely. And still other states like Florida, Illinois and Michigan, have reacted by approving cutbacks in school funding which indicate a marked reversal for their major school finance reforms of 1972.

Given current budget projections, funds to support major changes in the school finance laws of most states will not be available until fiscal 1978 at the earliest. Research done for the American Enterprise Institute, for example, projects a surplus in state general government accounts of no more than $1.6 billion per year between 1976 and 1980. This amount is only about 40 percent of the general government surplus found in state budgets in 1972. Moreover, it is based on exceedingly optimistic assumptions about the rate of inflation and unemployment. But even with a modest economic recovery, interests representing school finance reform will find much more intense competition for available dollars than in the early 1970's. Unlike a few years ago, large cities are now in a precarious fiscal condition, having shouldered a disproportionate share of unemployment and other consequences of the mid-1970's recession. Additionally, public employee trust funds are likely to be in an increasingly tenuous position if their equity continues to be eroded by the 5 to 10 percent inflation rate of the last two years. And perhaps most important of all, the shifting demographic composition of most states implies reduced support for youth-oriented services like education and broadened support for services primarily of benefit to the aged, especially improved medical care. The declining school-age population, however, may not be so detrimental to the interests of school finance reform as some have projected since there is evidence that some states may view reduced enrollments as an opportunity which will allow greater school finance equity but at reduced overall cost.

The Lack of Adequate Federal Support. Efforts to make state school finance legislation more equitable in the near future are likely to be hampered not only by shortfalls in state tax collections but also by the failure of the federal government to provide appropriate support for state reform efforts. Indeed, some important education legislation has the effect of directly undermining state reform programs. Impact aid (Public Law 874), for example, will continue to flow directly to rich and poor school districts alike in reform states like Maine and North Dkota unless current federal regulations are changed significantly. If reform states are prohibited from including P.L. 874 monies as state revenues, the equalizing features of new reform legislation will be undermined. Under the Education Amendments of 1974, states are permitted to count sometimes sizeable federal impact aid payments as part of basic state aid, and accordingly, to prevent disequalizing consequences. These regulations, however, have been drawn in such a fashion that few reform states—probably only Kansas, Florida, Iowa and New Mexico—will be allowed to count impact aid to prevent disequalization and the windfall aid frequently received by very wealthy school districts with large numbers of so called "B" students. But more important, it will undermine a real opportunity for the federal government to encourage greater school finance equalization during a time when state budgetary troubles are unlikely to allow sweeping reform legislation.

The disequalizing effects of impact aid, unfortunately, are likely to be small compared to the consequences which may ensue from the recently signed Federal Education for All Handicapped Children Act. Under the provisions of this legislation, federal authorizations for the education of handicapped children will increase to at least $3 billion by 1982, a sum larger than that appropriated currently for any single program of federal school aid. This funding, however, will be divided so that all but 25 percent is passed directly to local education agencies. Rich school districts will be entitled to as much as poor ones.

Thus far, only the federal government's continued funding of the Title I compensatory education program and its recent creation of small-scale educational block grants have proved of major assistance to state finance reform efforts. Title I funds overall tend to flow much more to poor school districts than to wealthy ones, and more to fiscally and educationally overburdened urban districts than to more advantaged suburban communities. Moreover, the educational grant consolidation allowed under Title IV of the Education Amendments of 1974 allows state education agencies greater flexibility to concentrate resources on programs that are most in need of increased state support. This potential for increased concentration may prove somewhat of a mixed blessing in some states, however, if state education agencies continue to respond as indiscriminately as in the past to the skilled grantsmen of affluent suburban school districts.

At this point, the federal government seems to be interested in supporting state equalization efforts only if it

costs very little money. In the next year, for example, it is likely that Congress will fund Section 842 of the 1974 Education Amendments for about $13 million, a piece of legislation which is designed to support state planning for greater equalization in school spending. It already has provided allied research and planning support through some of the activities of the National Institute of Education, though substantially below the level which would apply if educational research were funded at the rate of research for most other public services.

Changing Judicial and Popular Sentiment. It has become especially difficult to promote new reforms due to shifts in judicial and popular attitudes which played such an important role in the legislative changes of the early 1970's. While state courts in California, New Jersey and Connecticut have mandated new school funding systems, courts in Idaho, Washington and Oregon have affirmed the constitutionality of existing finance policies. Courts are becoming hesitant to declare school funding systems unconstitutional without concrete evidence of educational injuries that occur as a result of inequitable finance policies. At the same time successful federal and state court suits in handicapped and bilingual education cases are requiring more state appropriations for these programs. Partly from court suits and partly from public demand, state appropriations for the handicapped have increased from $900 million to $2.2 billion in only three years. As these specialized court suits become more prominent, state legislatures may find funds diverted away from reforms designed to benefit all children. Where state and federal court action once promised a new day in school finance, new judicial pressures seem unlikely to result in many new sweeping school finance reforms.

Public dissatisfaction with increasing educational costs during a period of declining enrollments, and public concern about falling test scores are other factors which have short-circuited the ground swell for reform. The public, to be certain, is still in favor of new finance plans that relieve unfair school tax burdens or that result in tighter control over increasing school costs, but it also wants new educational dollars to make a difference in the performance of its schools. Consequently, several new state reform laws require a greater degree of educational accountability than was true in the past. For example, Wisconsin's and Virginia's new finance laws set standards of educational quality aimed to insure more equalized school offerings among school districts in those states. Florida's new finance reform "tracks" educational dollars straight to a child's specific educational program and also requires each school district to publish an understandable educational plan that tells local citizens how their school districts are spending their money. In New Mexico, state and local officials jointly prepare and explain school budgets in local communities.

Even with these advances, however, the public remains skeptical about the efficiency and effectiveness of their schools. It sees test scores declining, it does not feel that children are working hard at school, and it is alarmed by popular research showing that increased school funding will do little to improve educational achievement. In such a climate of public opinion, state legislatures will find it very difficult to raise more monies for educational reform. Until the national government funds more rigorous basic educational research, until state and local school officials encourage and support more productive "demonstration" school programs, and until the public understands that it will take time to develop more productive educational programs for their children, new school funding may be difficult to come by. Unless the economic productivity and educational effectiveness of our schools are improved, it is hard to conceive of the general public supporting major new finance reforms. School finance equity may well be the first casualty of lagging school productivity.

D. *Conclusion: Strategy for Reform*

The record of the four years following the *Serrano* case demonstrates the states' desire to work toward fiscal equity in school finance systems. School property taxes have been reduced. Expenditures in poorer districts have often been increased. More state funds have been alloted to children with costly learning problems. Tax and expenditure controls have been established to produce more local fiscal discipline, and new aid programs have been developed to meet the extraordinary school finance needs or urban and rural areas. In short, poor taxpayers and educationally disadvantaged children have been the main beneficiaries of reform. Any shortcomings in state school finance reform are overshadowed by these achievements.

However, states can still do more to improve equity through their funding systems while preserving local control of education. Federal and local governments can also contribute to this goal.

State Strategy. States should:

(1) continue to focus their attention on the school finance needs of poor children and poor school districts;

(2) discontinue any remaining aid to very wealthy school districts;

(3) encourage poor school districts to take full advantage of the fiscal benefits of new aid laws by providing technical assistance, where appropriate, and by offering preferential aid to the poorest districts;

(4) waive tax and expenditure controls which prevent poorer school districts from raising the quality of their local school services; and

(5) respect local control of education but demand that local school officials become more open and accountable to the general public about what goes on in schools and about what they are attempting to do to meet the educational needs of their students.

Federal Strategy. At the same time, the federal government should:

(1) increase the level of Title I compensatory education programs, currently 40 percent funded, to better serve the more educationally disadvantaged;

(2) consider the enactment of a general aid to education program to help maintain the fiscal equity of reformed state aid programs, or extend revenue sharing to school districts;

(3) repeal those features of present categorical aid programs that impede the fiscal equalization of state finance systems, particularly in the impact aid and handicapped aid programs; and

(4) support funding of basic educational research

aimed at identifying more productive educational programs which state and local decisionmakers can fund, thus improving the climate for school finance reform.

Local Government Strategy. Finally, local governments can cooperate in improving the fiscal equity of future school finance laws by:

(1) foregoing disequalizing state aid, in the case of wealthy districts, or by taking advantage of state aid in the case of poorer districts;

(2) discouraging the practice of minimum aid payments to all districts regardless of local wealth;

(3) supporting state tax measures necessary for implementing reform laws and programs; and by

(4) pushing for state grant programs that will help increase educational productivity in the public schools.

Finally, the general public must also continue to demand more fairness in its school finance policies. It must support the concepts of fiscal redistribution contained in the new finance laws. It must back state policies that will provide more funds for the educationally disadvantaged. And finally it must continue to demand more funding for those educational programs that hold the promise of raising the economic efficiency and educational effectiveness of local schools. New state finance laws in the future can be designed with all these ends in mind only with continued public support and cooperation from federal and local governments. Without such support, the future of state school finance reform appears bleak indeed.

Chapter II

Pupil Weighting Programs In School Finance Reform

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Four major areas of possible fiscal imbalance ought to be considered in distributing state aid for education. They are (1) interdistrict support disparities, (2) intradistrict support differences between schools, (3) regional price differences due to cost of living, sparsity or density conditions and (4) differences in needs among students and program costs. This chapter examines the policy issues which have arisen as states have attempted to address one of these issues—pupil cost and need differences—through pupil weighting systems in state aid programs. Particular emphasis is placed on the programs that have been established in Florida, New Mexico and Utah.

History

In distributing school funds from any legislative body to any administrative center, some unit measure of need must be identified if fiscal equity, by any definition, is to be achieved. Historically the teacher or classroom was the target of support.

As states began to underwrite the cost of a teacher, local communities were encouraged to expand their educational services. Socially desirable new programs, if of high cost in terms of equipment, space or limited enrollment needs, were not encouraged by this method of funding, however. Then the concept of the teacher unit, developed in 1921 in New York by Updegraff introduced the variable of the number of students served by the teacher as a factor in the establishment of the need unit.

A more flexible measure of educational need was developed by Paul R. Mort during the 1920's by converting costs per teacher unit to costs per student. His tables establishing weighted pupil units were produced originally as a basis for comparing program support between schools and communities. In 1951, in his book *Public School Finance*, he asserted, "The weighted pupil (or its mathematical equivalent—the weighted classroom) is the most systematically refined of all measures of educational need. . . ." Mort's work actually analyzed expenditures but the differences uncovered made "need" the central concern. The cost of education on a per-student basis since that time has become the subject of intensive examination.

The determination of cost as a direct function of expenditure, both direct and indirect, was the central theme of the considerable work of the National Educational Finance Project (NEFP). Their studies analyzed expenditures by program in a national sample of school districts, using acceptable cost accounting methodologies. Relative cost weights for the average student were evolved which provided one baseline for relating the additional "cost" of different classes of students receiving supplemental high-cost services to students receiving no such supplemental services.

This newer approach to defining the unit to be funded as the weighted student and providing different support levels has been adopted by a number of legislatures during the past several years. The change is typically a part of an overall funding shift designed to effect an equitable school finance system that corrects for imbalances in educational need among local school districts. The concept of "weighting," which is merely the act of establishing ratios of support for different classifications of pupil programs, has captured the interest of many legislatures throughout the country.

Rationale for Change

There are several different kinds of inequalities of need which create differential educational costs. First, children exhibit differences in inherent learning ability or in readiness to learn. Second, many children have physical, emotional or mental disabilities which interfere with their learning. Special programs have been developed for many of these children that should improve the amount of their learning, but they are invariably more expensive than programs for normal children, mainly because the number of children handled by one teacher is smaller. Equity would dictate that more money should be provided for the education of such students.

Third, there are learning disabilities that result from environmental factors. Children from low socio-economic groups, for example, learn more slowly because of environmental deprivation which limited their experiences outside of school. Presumably an enriched curriculum could help to counteract this, but such a curriculum costs more.

A fourth kind of need inequality has to do with differences in the cost of certain programs for normal students. Vocational subjects often require a substantial investment in equipment, and they also must have smaller classes, thus costing more per student to operate. If a legislative body wishes to recognize these differences in school finance formulas and can presume that the incidence of these differences varies among school districts and/or schools within districts, or if the legislative body prefers to abolish the type of control associated with traditional teacher unit systems, then the merits of a pupil-weighted system should be investigated.

There are several specific advantages to a system based upon a weighted pupil unit. It can provide:

1. An educational emphasis on the child.
2. A preciseness of support level.
3. Easy understanding for the layman.
4. More district independence from a central agency because requests for teacher units and the associated conditions may be minimized.
5. Equalization based on student need since the incidence of need usually varies widely from district to district.
6. Adequate support for high-cost programs by providing proportionally greater state funding.
7. An opportunity to direct major program support policy from the level most responsible for funding.

One of the most significant advantages of a weighting system is the consolidation of previous categorical grants since all students within a state can be included within a single school funding plan. Individual categorical program empires are no longer needed. Separate educational systems for vocational education, special education, and students who attend the basic program can be eliminated. States can consider all of the weights at the same time, thus trying to keep a balance among them and in relation to the program for normal students. This is better than categorical cost reimbursement programs, where entrenched bureaucracies connected with each type of disability are constantly trying to secure an increase in their percentage of reimbursement by attempting to maximize allowable costs.

Equally important is the fact that the pupil weighting method usually focuses on providing for the needs of special students, without specifying how those needs should be met. This gives districts a great deal of freedom to design and experiment with new programs.

These are important advantages, but pupil weighting systems also have significant disadvantages. Some are simply the other side of the coin of the advantages mentioned above. Giving districts freedom to design their own programs implies less supervision from the state, where some expertise in these matters is presumably lodged. If districts use this "freedom" for keeping down the cost of special programs in order to spend more on their normal children, they will have defeated the intention of the pupil weightings.

Setting the weights on prior expenditure patterns may just continue inefficient educational practices. Good data from the districts often are not available and the process of averaging, with its inherent weaknesses, must take place. Setting weights based on what programs ought to cost is a subjective judgment from which many shy away.

Another problem concerns misclassifying students for fiscal gain. In Florida, for example, some districts were quick to recognize that they could generate money or extra student services by placing or classifying students in high weighted programs. It would not have been unexpected to hear someone say in jest: "In our district every child is either retarded, gifted or in need of a vocational education program." This poses an auditing problem for the state education department, although perhaps not as severe an auditing problem involved in cost reimbursement, categorical programs.

These concerns raise the very critical issues of diagnosis and determination of student needs. Needs assessment becomes a paramount issue and is a prerequisite for an effective weighting system. A needs assessment program, for example, has been implemented by the New Mexico State Department of Education. And in Florida the Department of Education has established guidelines by legislative directive which the districts must respect in setting their policies relating to the diagnosis and education of exceptional children.

To keep pupil weighting systems fiscally manageable, legislatures in several states also have instituted "special program caps" on their weighting systems. This places an upper limit on the number of students who will be eligible to receive the special weighting in any of the special program areas. These "caps" have been established for special education, vocational education, bilingual, and early childhood programs in New Mexico; for special education and overall expenditures in Utah; and in all exceptional vocational and adult programs in Florida. Minnesota, with a relatively simple weighting system, has reportedly not found "caps" to be a necessity. These caps, however, could work a hardship on districts with disproportionate shares of these students.

Pupil-weighting systems also require cost-accounting arrangements more sophisticated than those currently found in most states. Additionally, it may be desirable to have machinery which can be used to enforce a policy of spending dollars for students and programs which generate them. Otherwise there is little need to establish sophisticated weights based on program need.

Another challenge is that a weighted student system invites efforts to change the weights. Those persons everywhere who see only a segment of the educational enterprise will seek to have the weights in the program of their interest raised without concern or regard to the other weights. This behavior is of course a mere continuation of the advocacy efforts of groups under systems of lump sum categorical funding. Until such categorically supported areas are minimized and relative weights are well established, the focus on the base value will be obscured.

Finally, to make the computations within the formula, the magnitude of date which must be handled quickly and

accurately often increases dramatically upon adoption of a complex pupil weighting system. The enormity of this task makes automatic data processing a necessity.

Determining the Programs to Weight

Several varieties of weighted funding programs are being established across the county. Although none is simple, all fall into several basic categories.

One category involves the selection of an age group or grade level group and designation that any member of that group be entitled to a distinct weight regardless of the program offered or of the specific needs or abilities of that person.

A second type of program grouping is based on specific programs offered, say a certain type of vocational education, and then providing a special weight to any student taking that program.

A third system involves qualifying the student based on the student's ability and knowledge, or lack thereof, or on the student's physical characteristics, as in the case of most exceptional child programs.

A fourth alternative is funding a supplement or giving an additional weight based on local demographic characteristics such as lack of family wealth, high local cost of school operations or sparse population. This alternative is usually in the form of gross district-wide adjustments over and above basic student weightings.

It is common to combine these systems, e.g., a deaf student must be in a qualified prescribed program before the weight is earned or a student must be above a certain grade level before he is eligible for a vocational course weighting. Florida with 26 weighted programs has taken the maximum advantage of these diverse options.

Classifying the Students

A major reason for departing from a teacher unit grant system or a flat rate per child support system is the desire to underwrite the varied needs of all children. The legislature, however, must appropriate a finite sum of money to support the infinite number of expensive programs for the unlimited needs of all children. It may soon discover that unplanned growth will occur in high-cost educational programs. In addition to limitations or caps on enrollment and program expenditure requirements, an initial control system for defining and approving the placement of students in these expensive and high earning programs may be needed or else the more active advocates of these high-cost programs may redirect funds from the basic classrooms to their special programs. A pupil weighting system, then, may charge the state education agency with the responsibility for establishing the placement criteria and the district records system by which decisions will be made and maintained for audit. Such a system would have a clear set of objective criteria related to age or grade level, course prerequisites, determinable physical characteristics, testable capabilities, and psychological characteristics.

Setting the Weights

Perhaps the greatest problem with pupil weightings is defining the appropriate weighting. There is no general agreement on how this should be done.

There are three basic approaches which can be used to set the weights. The first method, one used by the NEFP, is to utilize an acceptable cost accounting procedure to determine what is being spent on different programs. The average of many samples becomes the weight. Further analysis, however, is often necessary because of the variations in indirect attribution methods. Unfortunately, recommendations for weights derived from such studies constitute circular reasoning. The Florida experience represents a good case in point. The exceptional child weights which were incorporated into the funding formula adopted in 1973 were basically derived by simply dividing the average student number required to form a specific teacher unit into the average number of students in an ordinary class. Thus if the average number of students in classes for the deaf had been seven and the ordinary class had 28 students, the weight for deaf would be 4.00. The Utah pupil weighting study utilized this methodology as did New Mexico, when past costs of programs were estimated prior to setting weights. This limited basis for weight determination, however, draws public and administrative attention to differing costs while avoiding conflicts over reduced funding support.

The second approach is to simply set the weights on legislative judgment. In Utah the legislature set the weights for all grades at 1.0 even though historically more had been spent in secondary schools, but it made no attempt to enforce its judgment because districts are free to spend the money generated as they wish. In Florida, in 1973, a weight of 1.20 (since raised to 1.234) was given to students in kindergarten through grade three because key legislators expressed their belief that the primary years were of more educational significance and should be better funded. The legislature that year also set the weights of several exceptional child categories at the same level, even though previous research showed some historical expenditure differences, because legislators believed that identical fiscal rewards would avoid possible misplacement of students. Such misplacement could easily occur in the case of a student achieving a level typical of the higher "mentally retarded" when a classification of "specific learning disabled" would be more proper. It was determined that in such cases educators should be free from financial pressures or incentives when diagnosis and placement proceedings are being undertaken.

A third method of setting weights and the best one if the weighted student system is to be fully used to establish educational policy, requires that key persons from the appropriate body conduct a study of anticipated program costs based on a set of desired or exemplary program delivery systems. Such a study must begin at the program level and decisions must be made as to how to gain optimum performance from deaf, blind or average pupils. Although details of staffing and materials selection are best left to local education agencies, some central administrative judgments must be made, based upon a determination of the most cost-effective delivery system for each program funded. The best neutral talent should be organized to establish the elements of these systems. When these judgments have been made the programs can be costed out, again by neutrals, and ratios between programs then can be derived to provide the pupil weights.

By this method, policymakers can compare, say, the cost of teaching primary grade children in groups of 20 in a climate-controlled space of 1000 square feet with any other program alternatives.

Regardless of the methods used to determine weights, they are usually based on the assumption of a full-time program. It may be desirable, however, to have certain students in need of special training "mainstreamed" and to provide them with special help during a short-time tutoring interlude. Such programs are usually very costly on a per-student hourly basis. An example is seen in the case of mental retardation or other learning handicaps. Many such children have been served in a full-time program, with perhaps 10 of their peers, at the equivalent of a 2.50 weighting. Yet, it may be preferred educational or social policy to place these children in the regular classes; that is "mainstream" them for half of the time and pull them for tutoring or for special skills training several hours a week at an earning weight of, say, 7.50. Florida has so provided for many exceptionalities. But it might not be desirable for a district to earn the higher part-time weight all week long, thus some limits may be established. Mainstreaming or isolating the exceptional child, however, will be encouraged or discouraged by limitations which may be placed on part-time earnings. When the statutory limitation on part-time earnings was raised from 7/25 to 12/25 of a week in Florida, it became clear to many districts that it could be more profitable to reclassify full-time students at the 7.50 weight and earn the balance of 13/25 of a week at the 1.00 base rate. Such a limitation also tends to encourage districts to scatter their isolated students into the mainstream of the school. Thus, program placement judgments can be influenced by the particular characteristics of a pupil weighting system.

An additional option has been exercised in some states conducting studies to establish weights in which the weight is an add-on to a base value weight. For example, instead of stating the weight for deaf as 4.0, it could be set at 3.0 under the presumption that it would be added on to a base weight of 1.0.

When a state decides to pursue a weighted system approach, the actual determination of the weights often is based on historical expenditure patterns for certain programs. A base is then identified. More than likely, this is a basic program within the elementary school. In New Mexico the basic elementary program in grades four through six is the base. The cost on a per pupil basis of this program is taken as one. All other program costs on a per pupil basis are than compared to this base program cost. In this manner the ratio of the higher cost programs are determined. The problem of this approach is that the past or historical cost of programs may not be the best determinant of the desired expenditures in the program. Are the programs which we are utilizing as our basis for cost adequate? Are these programs exceptional programs? Are these programs meeting the needs of students? These are the significant educational questions which should be the basis for determining weights.

Establishment and justification of weights can be made through a range of procedures; however, the initial change to any new school finance system in any state will produce anxiety among educators, and there is considerable political and program merit in utilizing to some extent the first method of simple conversion. Such action allows the wary to support the change without fear of a significant shift in funding patterns. Future alteration of the weights can occur by legislative design or independent evaluation which points the way to more cost-effective approaches of funding students with different educational needs.

Establishing the Pupil Unit

A crucial policy question is whether or not to count pupils entitled to a high-weighted classification at all times during their school week, or only during the time they are in a selected program. The latter approach required shifting to what is known as an F.T.E. (a full-time equivalent) concept and has become the newest method of counting students. Since the method of establishing and counting the pupil unit has direct impact on the earnings generated, the weights themselves may need to be altered after resolving the following questions:

1. Should the minimum length of the school year and school day be set as a condition for qualification as a full-time student?

2. May a student earn more than one FTE? Students in heavily weighted programs will be more than one weighted full-time equivalent (WFTE), of course, but should districts be able to extend the length of the school day and thus generate more dollars? Will extended school years, or summer school, be counted extra?

3. Should varying time periods apply in different programs? Should a high school student be required to attend six hours a day while a kindergarten student perhaps is required to participate for only five hours per day?

4. Do you wish to count only student-teacher contact hours or will work experience classes and even teacher preparation time count? Do you wish to count gross or net classroom hours?

5. What about part-time or short course work? Will you simply count classroom hours and let that generate a fraction of an annualized FTE?

6. If the school time is longer than the minimum and a student is enrolled in both high-weighted and base-weighted programs, will the extra unpaid time be attributed to the high or to the regular weighted program?

7. Will student attendance or mere enrollment and membership meet the qualification standards? When will these counts take place and what audit trail will be left behind?

An Accounting and Auditing System

If there is a significant range of student program needs between schools and districts, and dollars are to be distributed according to these varying needs, a uniform statewide system of tracking and reporting expenditures may be necessary to assure that funds earned by and appropriated to a specific category are spent on that target population. If this is not done, the intent of a weighted student system may be largely thwarted. Accounting controls can operate in the manner found in Florida. There, the legislature had two sets of concerns: one, that the school districts might not accept the legislative desire to emphasize the primary grades and vocational and exceptional

child classes; and two, that within school districts dollars earned on children in one school would be spent on children in another school by the use of expanded program offerings, highly salaried teachers, and reduced teacher-student ratios. Historical evidence indicated these concerns to be well-founded. Equality demands that state aid earned, both in each school and in each program be spent there. Thus each school becomes a budget and an accounting center. Reporting each school's expenditures has been a new experience for many communities, and the public attention given the new data may be control enough; however, specific authorization was granted to the State Department to reallocate pupil weighted funding among schools.

Another control on both over and under-usage of categories was developed by legislative staff in Florida by simply computing the percentage of each district's full-time equivalent student population in each category and computing a state average. Readily available data will show which districts are slow to institute a complete kindergarten program or which districts have a low percentage of students in their senior high classes. An important additional use of the data is to point to districts which have exceptionally active diagnosis and placement persons in the areas of high earning exceptional student classes. This identification of exceptions to the norm serves as a red flag to auditors.

The development of a system must be largely a state function in order to achieve comparability between districts; however, there are several policy issues which ought to be resolved before an accounting system is adopted. They are:

1. Is it desirable to have school-by-school accounting to assure greater intradistrict equalization and to provide more localized accountability?

2. Should programs be grouped for cost reporting purposes, i.e., all vocational courses together or all programs for physically disabled?

3. What level of expenditure compliance are you seeking? What groups are you protecting from under-expenditure? Do you wish to encourage and support particular programs?

4. Will you consolidate many indirect categorical programs such as retirement expense and supervision programs? Do you wish to attribute district-wide indirect costs to all schools or are you interested only in certain direct costs?

A limited but indispensable amount of legislative leadership is necessary in this area from the beginning in order that a clear direction be set. Changes in the policy areas listed should not be made lightly because accounting systems are very expensive to create, and comparability over time is lost when essential elements are not uniformly reported.

Unlike Florida, some states have not developed elaborate accounting systems for their weighting programs. A significant feature of the New Mexico school finance plan, for example, is the non-categorical nature of the revenues generated under the weighting system. There is no requirement that any portion of the generated revenue for a given program be tracked to that program. This feature provides sufficient latitude to the local board of education to provide the service of their choice. Some service must be provided; the expenditures and quality of the service may vary. In this manner the funding weights can be adjusted to the average expenditure patterns of the districts. This approach avoids the circular logic of revenue tracking where the weights determine expenditures which in turn support the value of the weight. New Mexico hopes to avoid this situation and ultimately allow common practice only to determine the eventual pupil weightings.

Alternatives to Pupil Weighting Systems

There are a number of ways of funding the costs associated with meeting the differences in pupil needs. This chapter is mainly concerned with the method known as pupil weighting, but it may be helpful to describe other methods and to list their advantages and disadvantaged in order that valid comparisons with a pupil weighting system can be made.

A first method of handling these differences is simply to ignore them in a school finance formula. Until recently, this was the method used in Iowa, for example. The fact that special programs are ignored in the finance formula does not mean that they are not provided to the students. The district receives a certain amount of money per student, and it is assumed that it will be spent where the need is: more on certain students and less on others. This method simply amounts to an assumption on the part of the state that the incidence of special need may be approximately the same in each district of the state. Yet, in some states, this is not true; particularly in heterogeneous states like New York and California. The proportion of the students in high school is highest in the suburbs; the concentration of children of low socio-economic status is greatest in cities and to a lesser extent in rural areas; the concentration of children with physical or mental defects is often increased when districts offer a good program for them. Thus, ignoring student differences does not provide a very great measure of equity. It does have a major advantage, in that it gives districts the greatest freedom in how they run their special programs, or even which ones they run. The other side of this coin is that it gives the least say to the State Department of Education. It is probably desirable to have a balance between these two. State education departments can afford to employ experts on the various programs, but local districts know better what their special needs are. Perhaps the greatest disadvantage of this method of funding is the tendency on the part of districts to underfund or eliminate high-cost programs. Where there is no special money provided for a program, there is much less incentive to staff and operate it properly.

A second method of handling the differences in pupil costs is to have the local school districts only educate normal children, and have the children with special needs educated by special intermediate districts. This is done to some extent in a few states. New York has its Boards of Cooperative Educational Services, Oregon its Intermediate Education Districts, and Iowa its Area Education Agencies. These all provide some educational services for special students, either by state fiat or by contract between the intermediate and local district. Typically, these in-

termediate districts operate programs for the mentally retarded and the physically handicapped, and some vocational programs. An advantage of this method is that it enables concentration of students with special needs so that their needs may be more effectively and efficiently served than in the local districts where there may be only a few with a particular handicap. This also makes it possible to hire teachers and supervisors with special expertise, and to utilize special curricular materials that would be too expensive for the local school districts. A major disadvantage, of course, is that this method takes the children away from their local schools. If they would be in special classes anyway as, for example, with the trainable mentally retarded, this is not a serious concern; however, it involves more transportation than leaving them in their neighborhood schools. It is a more difficult problem when it is desired to educate the children in special classes only part of the day, and allow them to return to their regular classes the remainder of the time. Moreover, it actively discourages the practice of "mainstreaming", giving special treatment to children with special needs while allowing them to remain in classes with normal children most of the time. It is thus obviously unsuited for most programs for the disadvantaged which are conducted in regular classes. It clearly cannot be used for regular high school programs, for these are educating the vast majority of normal students. In most cases it is also unsuited for taking care of the problem of necessary small schools, since by definition these are too far from other schools for convenient busing.

Intermediate districts are sometimes funded by an area-wide levy (Oregon, for instance). That tends to spread the cost of the special programs over a wide area, even though some types of handicaps may be concentrated. This provides a measure of tax equity. Alternatively, they may be substantially funded by the state, as in New York, with only a small portion of the revenue of the intermediate district being provided by contract between the intermediate and the local districts. In either case, the amount to be raised may be determined either by submitting a budget based on actual costs of operating the program, as in Oregon, or by determining the amount to be raised on the basis of weighted pupils, as in Iowa.

The third method of accounting for the special needs of certain pupils is through cost reimbursement programs. The state sets up certain categories of students and programs for which it will provide special reimbursement. Such programs are typically for the mentally retarded, the physically handicapped, and in vocational subjects. An accounting procedure is set by which districts can record and report the excess costs of educating these children. Allowable and non-allowable costs are specified by the state. The district is then reimbursed for all or a portion of its excess cost (above the cost of educating a normal student) up to a certain maximum amount per student. One advantage of this type of allowance is that it clearly targets the money where it is intended to be used. Only those expenditures which have actually been made on the program to be aided are reimbursed. It also involves substantial regulation by the state education department through its control of which expenditures will be reimbursed. If there is a curriculum and an instructional method that is agreed by most knowledgeable people to be effective and efficient, it is desirable that the state education department enforce this curriculum and method. This is not, however, generally the case. As a result, excessive regulation by the state department can result in perpetuation of outmoded programs rather than exploration of new ones, or in use of the same program in widely differing circumstances. Care should be taken in such a system so that there is provision for adequate input from the local district.

A second disadvantage of this method is the discouragement of mainstreaming which usually results in costs that are much more difficult to identify, and for which to claim reimbursement. Another disadvantage is that the money is only paid after the costs are incurred. This means that poor districts may be prevented from starting or expanding needed programs because they cannot afford the initial cost outlay. A final problem with these programs is that the state usually sets a ceiling of reimbursable expenditures so that districts will not mount unnecessarily expensive programs. States frequently set the ceiling so low, however, that the districts must absorb substantial additional costs above the reimbursement level. Alternatively, the maximum reimbursement set by the state often tends to become the minimum expenditure on the program, which does nothing to encourage program excellence.

Pupil Weighting Systems in Operation

Utah, New Mexico and Florida have in-depth experience with pupil weighting formulas. They have been enacted and amended during the years since 1973 and in each case are a part of a new aid program which addresses much more than the pupil weighting concept. All three formulas address a multitude of equalization, governance and program issues.

-Utah-

The 1973 school finance reform in Utah developed weightings in four significant areas where cost differentials were apparent—small schools, special education, vocational education and staff costs. Most of the weightings were based on historical cost averages, thus the problem of determining what costs ought to be is yet to be faced in Utah's formula. The weightings for each of the four areas discussed herein are in addition to the 1.0 weighting for a regular pupil in grades 1-12.

Small Schools

For some time the Utah Legislature has provided funds to small isolated schools that applied for special funding. Analysis showed considerable inequity in funds received compared to size, especially as the legislature began reducing funds for small schools. After considerable research and analysis, a new aid formula was developed for a necessarily existent school which gives additional weighted pupil units to districts with small isolated schools. The additional weighting phases out as school size increases. The formulas are presented in Table 1.

TABLE I

UTAH SMALL SCHOOL WEIGHTINGS

Elementary Small School Formula:

Multiply the number of kindergarten pupils in average daily attendance by .55 and add the pupils in average daily attendance in grades 1 through 6 and apply that sum to the appropriate school category below:

Average Daily Attendance by School Size	Number of Weighted Pupil Units
Elementary Small School Formula:	
5-12	27
13-20	40
21-30	53
31-50	53 + (1.4) (ADA minus 30)
51-90	81 + (1.2) (ADA minus 50)
91-110	129 + (1.0) (ADA minus 90)
111-165	149 + (0.3) (ADA minus 110)
Junior High Small School Formula:	
0-40	Number of Puills x 2.0
41-80	80 + (1.5) (ADA minus 40)
81-150	140 + (1.4) (ADA minus 80)
151-250	238 + (1.0) (ADA minus 150)
251-350	338 + (0.12) (ADA minus 250)
Senior High Small School Formula:	
0-75	Number of Pupils x 2.0
76-125	150 + (1.6) (ADA minus 75)
126-185	230 + (1.1) (ADA minus 125)
186-250	296 + (1.0 (ADA minus 185)
251-375	361 + (.112) (ADA minus 250)
Six-Year Small School Formula (Grades 7-12):	
0-80	Number of Pupils x 2.0 (min. total weighting of 27)
81-160	160 + (1.4) (ADA minus 80)
161-250	272 + (1.0) (ADA minus 160)
251-425	362 + (0.36) (ADA minus 250)

Source: The weightings are presented as passed by the 1975 Utah Legislature in Senate Bill No. 333.

Special Education

Utah's new weighting system allots additional funds for special education students. These funds have increased much faster than the rest of the school program. However, under the new weighting system, some districts that "got in early" have very good programs while other districts are now just meeting special education needs. District reports were so inconsistent and identification practices and delivery systems so lacking in standardization that the legislature chose to distribute half of the special education appropriation according to the weightings and half based on each district's proportion of the total special education pupil population in the state. After further analysis, the weightings will be adjusted, if necessary, by future legislation.

The State Board of Education has not yet proposed any changes to the weightings and is in the process of auditing the districts' service and identification procedures in comparison to uniform standards. Therefore, the 1974 and the 1975 Legislatures have not adjusted the formulas or the distribution patterns, and considerable inequity may still exist between districts. It is hoped that through diagnostic procedures currently underway, and with increased administrative discretion by the State Board of Education, the target population can soon be identified according to acceptable standards, and the percentage of special education pupils served will be evened out between districts. The delivery systems must also meet standard criteria. Then the weightings will distribute the funds equitably and the legislature will know, with some assurance, the amount of funding needed to meet the special needs of qualified pupils. (See Table 2).

Vocational Education

Many of the same reporting problems that existed in the special education area also occurred in vocational education. The legislature adopted weightings for vocational education programs in the following five categories. The following weightings are applied to the full-time equivalency of students in each program:

Agriculture	1.2
Business	.07
Distributive	0.5
Home Economics	0.3
Technical and Industrial	1.4

The legislature, however, still expects the vocational education weightings to be further refined or substantiated before channeling more funds into the program. The

TABLE 2

UTAH SPECIAL EDUCATION WEIGHTINGS

Number of Pupils by Program ADM	Weighting Factor For Handicapped Pupils: In Regular Classes	In Self-Contained Classes
Educable Mentally Retarded	.70	2.28
Trainable Mentally Retarded	1.00	2.53
Learning Disabilities	.73	.00
Emotionally Disturbed	1.10	3.09
Deaf and Hard of Hearing	1.60	2.50
Speech and Hearing	.30	.00
Motor Handicapped	1.20	2.88
Visually Impaired	1.60	.00
Homebound and Hospitalized	.00	1.80
Training Center Multiple Handicapped	.00	2.78

Source: The weightings are presented as passed by the 1975 Utah Legislature in Senate Bill No. 333.

State Board of Education has not provided additional data on vocational education weightings at either of the two legislative sessions since the new school bill was adopted and thus the formula has not been changed. All vocational programs receiving state funds must be approved by the State Board of Education.

Staff Cost Factor

According to a research report presented to the 1973 Utah legislature, the highest cost factor for any school district is that of salaries for professional personnel. The variance between districts of the average amount of professional training and practical experience of instructional and administrative personnel can have a disequalizing effect on local school finances. Districts with high staff turnover may enjoy a financial advantage over those with lower turnover if they replace experienced teachers with less experienced ones who are lower on the salary schedule. The professional staff cost factor recognizes these additional costs and makes allowance for them in the finance formula.

Summary

The cost differential system developed as a part of Utah's new school finance formula was a marked improvement over previous distribution methods. The 1975 Legislative Appropriation Subcommittee was able to better assess school finance problems and act more decisively than under the previous formula. The operational problems will be ironed out as the State Board of Education staff increases research and control procedures. There has been surprisingly little criticism of the actual weightings calculated for each program. Greater equalization is funding pupil needs is occurring. The future in Utah will probably bring minor adjustments with perhaps some consolidation of categories in the special education program, and other changes directed toward more effective management of the school system by the legislature.

-New Mexico-

The pupil weighting system developed in New Mexico incorporates pupil weights, program weights and instructional staff weights, as well as adjustment factors for school and district size. The program elements and respective cost differential weights are listed in Table 3. The special education "A/B Resource Rooms/Itinerant Teacher" weight of 20.0 is a program weight and is not affected by the number of students who are served within the program. The vocational and bilingual weights are "add on" weights where students counted here are initially weighted in one of the basic program levels. The number of students receiving weighting for kindergarten, vocational, and bilingual education programs is computed on a full-time-equivalent basis.

Educational Training and Experience

Instructional staff is a major cost factor for every school board. Staff in New Mexico school districts are paid in accordance with salary schedules based on training and experience qualifications. Highly trained and experienced staff members receive higher salaries than lower trained and experienced staff members. In school districts with a majority of highly trained and experienced staff members and on the upper branches of the salary schedule, staff costs are greater. For that reason, this factor is taken into consideration within the state aid plan.

Previously, it was a liability for a school district to hire a teacher with many years of experience or with a master's degree or beyond, since these staff members cost more. The training and experience adjustment within the formula removes that liability. The state now recognizes this is a cost factor and helps offset the cost of this staff member to the individual school district.

The training and experience index is calculated based on a series of weights applied to the members of instructional staff in each of twenty-five training and experience

TABLE 3

NEW MEXICO SCHOOL FINANCE FORMULA
PUPIL WEIGHTINGS (1974)

Program Elements	Cost Differentials
Kindergarten	1.1
Basic program levels:	
1-3	1.1
4-6	1.0
7-9	1.2
10-12	1.4
Special education levels:	
A/B Resource Rooms/Itinerant Teacher	20.0
C Moderate	1.9
D Severe	3.8
*Vocational education	0.8
*Bilingual	0.5
*Sparsity units:	
Elementary—Junior Hgh	

$$\frac{(200 - ADM)}{200} \times 1.0 \times ADM = \text{units}$$

Senior High**

$$\frac{(200 - ADM)}{200} \times 2.0 \times ADM = \text{units}$$

District

$$\frac{(4000 - ADM)}{4000} \times 0.15 \times ADM = \text{units}$$

Educational Training and Experience Adjustment (see Training)

*Weights in addition to basic or special education weights.
**This reflects a lower pupil-teacher ratio at the high school level.

categories. (See Table 4) The weights range from 0.75 for staff members with a BA degree or less and 0-2 years experience to 1.5 for staff members with a post-MA degree (or MA+45) and over 15 year's experience. Thus the state matrix provides for a doubling of the weighting with an Education Specialist or Doctor's degree and 16 years of experience. In practice, however, in New Mexico no school district doubles the base salary in its approved salary schedule for teachers. Staff members are placed on the matrix in accordance with the training and experience (T&E) recognized by the district for pay purposes.

The state matrix was calculated to provide for a state average T&E index of 1.000. Thus a district with above average T&E will have an index greater than 1.000. A district with below average T&E will have an index below 1.000. Since program units are adjusted (multiplied by) the district index, program units are increased or decreased in accordance with the index. A provision of the New Mexico law provides that a minimum index of 0.95 will be utilized. One problem, in practice, is the reduction of units noted when a district has a T&E index less than 1.000. This appears as a "loss" in relative equalization funds.

One problem which has occurred in New Mexico is whether or not the index should be applied to all, or a designated percentage of, the program units. Under current New Mexico law the index is applied to all the program units except the size adjustment units. Since the training and experience of instructional staff does not affect the entire budget, the alternative of applying the index to a partial amount of the units is being studied. Another potential alternative being considered is changing the numerical values to range from 1.00 to 2.00 to remove the negative application.

TABLE 4

EXAMPLE CALCULATION
NEW MEXICO EDUCATIONAL TRAINING AND EXPERIENCE INDEX

500 Instructional Personnel
(Includes Operational Budget Accounts 210.03, 210.04, 210.51, 210.52, 250.01, and 250.02)

Experience	BA or Less	BA + 15	MA or BA + 45	MA + 30	Post MA Degree or MA + 45
0-2	.75	.80	.85	.90	1.00
3-5	.90	.95	1.00	1.05	1.15
6-8	1.00	1.00	1.05	1.15	1.30
9-15	1.05	1.10	1.15	1.30	1.40
Over 15	1.05	1.15	1.20	1.35	1.50

Years	BA or Less	BA + 15	MA or BA + 45	MA + 30	Post MA or MA + 45
0-2 (staff)	50	45	5	0	1
3-5	40	20	20	0	3
6-8	30	35	20	10	0
9-15	15	40	15	20	5
Over 15	20	25	70	10	1

1. Multiply weight by number of personnel in each category:

   50 x .75 = 37.5 (.75 is taken from state matrix)
   40 x .90 = 36
   30 x 1.00 = 30
   15 x 1.05 = 15.75
   etc.

2. Add products from above:

   37.5 + 36 + 30 + 15.75 etc. = 513.45

3. Divide total from above by 500 to give district index: 1.027

Size Adjustment Factors

New Mexico is a largely rural state with 88 school districts, over half of which have an average daily membership of less than 1,000 students. For that reason the cost of operation of small school districts is of paramount concern. Small schools must operate with small pupil/teacher ratios in order to provide basic educational programs. These small pupil/teacher ratios in turn are a very significant cost factor above and beyond the program cost factors normally found in grade level variation. For that reason the weighting of students in small schools and small school districts is a significant element within the school finance plan.

During the initial year of operation, special education students were included in ADM for determining additional units for small schools. Since special education is already weighted for smaller pupil/teacher ratios, counting these students for small school units was inequitable. This was especially true in those small schools which housed only special education students. In this case there was essentially double funding for the small pupil/teacher ratio factor. This part of the law was changed during the past session of the legislature to make special education students ineligible to be included in ADM for small school size adjustment units.

Operation of the Weighting System

The weighting system takes all of the individual input items as determined by each district, applies the cost factors which have been identified, and creates program units for funding purposes. In New Mexico this is accomplished by taking the program inputs times the applicable cost differentials to generate program units for the basic program areas, the special education, vocational, bilingual, and early childhood education areas, and totaling the program units. The next step in the calculation is to adjust these units by the staff training and experience index as calculated for the individual school district. As indicated earlier, a higher index means higher training and experience (T&E) which in turn means higher costs, so additional units are calculated. On the other hand, a lower staff T&E index indicates lower T&E, hence lower costs and reduced amounts of revenue required. The third and last calculation is to add any additional units which are available to the district due to the size factors of the individual schools or the school district as a whole. Consequently, the weighting system in operation in New Mexico provides that a student may be weighted one, two, or

TABLE 5

CALCULATION OF PROGRAM COST
NEW MEXICO SCHOOL FINANCE FORMULA
DISTRICT ADM = 10,000

Program Need	Students	Cost Differential	Program Units
Early Childhood	450	1.1	495.0
Basic Program			
Grades 1-3	2100	1.1	2310.0
4-6	2400	1.0	2400.0
7-9	2600	1.2	3120.0
10-12	2300	1.4	3220.0
Special Education			
A/B Resource Room/ Resource Tchrs.	6	20.0	120.0
C Moderate	130	1.9	247.0
D Severe	20	3.8	76.0
TOTAL STUDENTS	10,000		
Vocational Education	200	0.8	160.0
Bilingual	100	0.5	50.0
TOTAL PROGRAM UNITS			12,198.0

Additional Units

Sparsity
Elementary-Junior Hgh 168 ADM
$\frac{200 - 168}{200} \times 1.0 \times 168 = 26.880$ units
Senior High None eligible
$\frac{200 - 0}{200} \times 2.0 \times 0 = 0$ units
District Not applicable
$\frac{4000 - ADM}{4000} \times 0.15 \times ADM =$ units

Total Additional Units = 26.880
Training and Experience Index 1.027
Adjusted Total Program Units = 12,198.0 x 1.027 = 12,527.346

Program units	12,527.246
Additional units	26.880
TOTAL UNITS	12,554.226

Dollar Allocation = 12,554.226 x dollars per unit
@ $616.50 per program unit
= 12,554.226 x $616.50
= $7,739,680

100% district need in dollars = $7,739,680

more times for funding purposes. For example, it is potentially possible for a student to be enrolled in a special education program, also in vocational program, to be in a school below 200 in size, and to be in a school district below 400 in size. Taking all of these considerations into account, a student can be weighted a number of times within the calculation of program units for funding purposes within that school district.

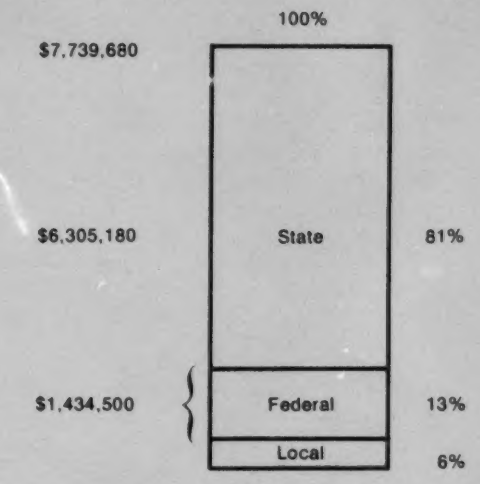
The revenue allocations to each school district are determined by state appropriation. In New Mexico this is accomplished by a dollar per unit support figure established by the legislature. With the dollar per unit figure established, the number of units calculated for each district is multiplied by the dollar per unit figure to provide the revenue which will be guaranteed by the state to that school district. A numerical example based on a district with 10,000 ADM is provided in Table 5.

It is at this point that the equalization feature of the formula comes in. Here the state takes into consideration all the non-state sources of revenue which are available to the school district to help purchase that plan. The example which is included in Table 6 demonstrates how this is accomplished in the New Mexico school finance plan.

TABLE 6

NEW MEXICO
STATE EQUALIZATION GUARANTEE

District Revenue:	
Local	
Uniform mill levy (8.925 mills)	$ 450,000
Motor Vehicle License Fees	30,000
Federal (Non-categorical)	
Forest Reserve	10,000
Regular Vocational	20,000
P. L. 874	1,000,000
TOTAL	$1,510,000
95% of total taken as credits	$1,434,500
Program Cost	$7,739,680
Less Credits	-1,434,500
State Equalization Guarantee	$6,305,180



-Florida-

In 1973 the Florida Legislature replaced the Minimum Foundation Program with the Florida Education Finance Program. The legislative intent was stated in the act as follows:

> To guarantee to each student in the Florida public school system the availability of programs and services appropriate to his educational needs, which are substantially equal to those available to any similar student,

notwithstanding geographic differences and varying local economic factors; and

To increase the authority and responsibility of districts for deciding matters of instructional organization and method, and to encourage district initiative in seeking more effective and efficient means of achieving the goals of the various programs. . . .

The act provided for inter- and intra-district equalization among Florida's 67 public school districts, as well as for cost accounting and reporting systems, management information and assessment systems, and a major start at equalization of capital outlay expenditures. A number of categorical programs were retained, amended or added, including separate funding for transportation, textbooks, community schools and elementary counselors. Companion acts provided for school advisory councils and annual reports of school progress. The school site in various ways, both implicitly and explicitly, was established as the base for budgeting, reporting, assessment and management accountability generally.

In terms of its impact, the most significant aspect of the reform was the new distribution formula for operating funds to Florida's 1.5 million students. A full-time equivalent student was defined and "weights," or relative ratios of support, were assigned to each of 26 programs. Those programs are divided among four areas, as follows (see Table 7 for details):

Basic Programs

Florida historically had a clear pattern of higher expenditures in secondary schools. The legislature, however, expressed the belief that the first years of schooling are the most critical and should therefore be funded at a higher rate. This sentiment continued with the 1975 legislature when the original weight of 1.20 was raised to 1.234 even in a very tight money year. A higher weight of 1.10 was also given during the last years of high school to provide for the extra cost of counselors and for necessary supplemental low-enrollment courses.

Exceptional Student Programs

Florida provides eight programs for full-time special students and seven programs for students who need special services for less than half their time in school. The part-time students are funded from substantially higher weights because such programs are normally established as tutoring or small group sessions. The definitions of the special programs, the identification of children, and the curriculum are in each case established by local school board policy in accordance with guidelines adopted by the State Board of Education.

Vocational-Technical Programs

Florida high schools and Vo-Tech centers provide job skill training through nearly 200 specific courses. In order to encourage the offering of a wide range of courses, six differently weighted groupings exist. Florida has rapidly expanded its "voc-ed" programs in recent years and it is anticipated that in the public schools, 15% of all operating expenditures for the 1975-76 fiscal year will support this type of education.

TABLE 7

FLORIDA EDUCATION FINANCE PROGRAM

	Cost Factor Weights*
Basic Programs	
Kindergarten and grades 1, 2, and 3	1.234
Grades 4, 5, 6, 7, 8 and 9	1.00
Grades 10, 11, and 12	1.10
Special Programs for Exceptional Students	
Educable mentally retarded	2.30
Trainable mentally retarded	3.00
Physically handicapped	3.50
Physical and Occupational therapy, part-time	6.00
Speech and Hearing therapy, part-time	10.00
Deaf	4.00
Visually handicapped, part-time	10.00
Visually handicapped	3.50
Emotionally disturbed, part-time	7.50
Emotionally disturbed	3.70
Socially maladjusted	2.30
Specific learning disability, part-time	7.50
Specific learning disability	2.30
Gifted, part-time	3.00
Hospital and homebound, part-time	15.00
Vocational-Technical Programs	
Vocational education I	4.26
Vocational education II	2.64
Vocational education III	2.18
Vocational education IV	1.69
Vocational education V	1.40
Vocational education VI	1.17
Adult Education Programs	
Adult basic education and adult high school	1.28
Community Service	0.675
The combined districts' weighted full-time equivalent members are capped as follows:	
Programs for Exceptional Students	185,055
Vocational and Technical Programs	302,203
Adult Basic Education and Adult High School	27,184
Community Service	2,965

The value of one FTE was funded at $745 for the 1975-76 fiscal year based on an anticipated total weighted FTE of 1,988,000. The Department of Education is authorized to assign full-time equivalent membership in special programs to each district based on the district's request. The Department is further directed to review each district's program and needs in conjunction with authority to reassign weighted FTE's within the statewide maximums provided by law.

Adult General and Community Service

Only about one and a half percent of the formula funds support these programs, yet many high school and high school equivalency degrees are earned annually by these enrollees.

Calculating the Districts' Earnings

The total of the instructional time, as determined by membership counts four times yearly, can range up to 25

hours weekly for all students, and is converted to full-time equivalent membership by the program categories shown in Table 7 and then is multiplied by the cost factor weights.The product is the weighted full-time equivalent student count which is then multiplied by the annually set base student value ($745). That amount is adjusted by a cost of living differential factor for each district. The amount varies each year, based on a "market basket" survey conducted to determine the relative cost of purchasing equivalent goods and services in different regions of the state, but for the most part results in an adjustment of up to 10% above or below the original entitlement. The downward adjustments have caused considerable controversy both because of the psychological impact and because of non-acceptance of the survey findings. In retrospect it may have been better to set the base student value lower and provide up to 20 percent increases to the high cost of living districts. Other adjustments are authorized but not yet funded for compensatory education and for district sparsity.

From this subtotal is subtracted the required local school tax effort. Approximately one-third of the value of the total program statewide is supported by local property taxes in the form of a state-required levy. Florida is a highly equalized state, and poor districts only pay about 10 percent of their program while the richest district pays nearly 90 percent of its entitlement.

Summary

Florida is the largest state which funds public education by a weighted pupil system. Although the weights were in part derived from historical spending patterns under a teacher unit system, a considerable amount of legislative policy shaped the factors. The weight factors in Florida have substantial significance because earnings are directed to, and spending is reported from, the school site, steps which may increase accountability. Districts are required by law to spend, although not totally, the funds generated on the students and the programs earning the formula money, an approach not taken in other states. Unlike the other states studied, Florida no longer incorporates a factor for teacher experience or training. A number of conventional assumptions are thereby challenged, including the premise that more highly trained and experienced personnel are more productive or are necessary in large numbers to provide a quality program. By removing the training and experience factor which had been a part of school finance in Florida for 25 years, the legislature cleared the way for school boards to seek alternate means of staffing and of rewarding staff for their skills.

The issue of weight levels will remain as a proper question for research and debate. Information systems are not yet, and may never be, so complete that the issue can be resolved empirically. A large gap will perhaps always remain between the science of instruction and the art of teaching. Total funding to meet all needs and desires will never be available. The goal is equity, and most Floridians believe that the new Florida Education Finance Program is far more equitable than anything they have experienced in the past.

The Fiscal Impact of Comprehensive Pupil Weighting Systems

Three school finance reform states—Florida, New Mexico, and Utah—have employed comprehensive pupil weighting systems in their new funding laws. They do so in order to equalize for differences in educational need. Empirical data presented in the last part of this chapter aims to help the legislator understand the fiscal impact of these new programs in the states that have enacted them.

The Incidence of Weighted Pupil Units

Pupil weighting systems are designed to provide additional funding for communities with extraordinary educational need. Data from the states with the weighting systems indicate that their use has uncovered substantial variations in need among local communities. In Florida, a substantial number of poor counties, for example, have taken advantage of the weighting system by qualifying students for funding primarily in the vocational education categories. In contrast, almost as many poor counties have not emphasized vocational education, giving relatively greater weight to special education. It must be emphasized, however, that some poor communities have entered into multicounty vocational education service agreements and therefore appear to take less advantage of the weighting system than is actually the case. Moreover, when a community takes advantage of the weighting system and cannot validate pupil weights, it must reimburse the state for such actions. Communities which take advantage of both special and vocational educational weightings have raised their overall aid entitlements by as much as $120 per pupil above the state average (See Table 8).

In New Mexico, too, many poor communities have increased their special program units, primarily in the areas of early childhood, bilingual, special and vocational education. Yet a subsequent adjustment of program units by the training and experience index often tends to reduce the fiscal gains. Moreover, the sparsity component of the weighting factors generally affects both rich and poor districts alike due to the small size of the majority of New Mexico districts (See Table 9).

The Utah experience with pupil weighting parallels the situation of Florida and New Mexico in many respects. Poorer districts generally have below-average or average shares of special education students while the richer urban districts, particularly Salt Lake City, take extraordinary advantage of the special education weightings. On the other hand, the poorer rural districts exhibit a much greater need and preference for vocational education weightings as was true in Florida. As in New Mexico, both rich and poor districts benefited from Utah's sparsity or special schools weighting adjustment (See Table 10).

The data presented herein indicate a genuine legislative concern about the response of local districts to weighting systems. Districts perceive the fiscal opportunities of weighting systems differently. Some poor districts in all these states do not or cannot take full advantage of the weighting system while rich districts may do just the reverse. Yet, the bulk of aid earned by dis-

TABLE 8

PUPIL WEIGHTING PROFILES OF SELECTED FLORIDA DISTRICTS RANKED BY WEALTH 1973-74

		District Share of Full Time Equivalent Students				
District	Valuation/ FTE	Exceptional Child Programs	Vocational Education Programs	Adult and Community Service Programs	Basic Grade Level	Total
Baker	$16,287	2.7%	7.9%	.2%	89.3%	100.0%
Dixie	22,250	1.3	11.4	.3	87.0	100.0
Putnam	25,385	3.0	7.7	.5	88.7	100.0
Seminole	29,776	2.0	5.1	0	92.9	100.0
Hamilton	33,266	4.0	12.8	.8	82.5	100.0
Citrus	39,095	1.9	10.9	3.8	83.4	100.0
Walton	43,864	2.8	6.2	0	91.1	100.0
Volusia	54,161	2.8	5.3	0	92.0	100.0
Broward	65,575	3.1	8.1	1.4	87.4	100.0
Osceola	85,566	2.7	6.9	1.0	89.4	100.0
Exhibit: Dade	60,004	2.1	6.4	2.0	89.5	100.0
State Total	43,289	2.5	7.6	1.3	88.6	100.0

Source: Commissioner of Education, *Pupil, Personnel and Financial Data—District School System, 1973-74* (Tallahassee, 1974)

TABLE 9

PUPIL WEIGHTING PROFILES OF SELECTED NEW MEXICO DISTRICTS RANKED BY WEALTH 1974-75

		District Share of State Total of:			
District	Valuation/ ADA	Basic 1-12 Units	Special Program Units*	Sparsity Units	Adjusted Program Units**
Pojoaque	$ 4,088	.46%	.41%	1.01%	.45%
Gallup	6,622	4.47	4.61	1.76	4.15
Socorro	7,700	.73	.89	1.89	.69
Moriarty	8,818	.33	.55	.80	.32
Cloudcraft	12,096	.13	.16	.66	.13
Ojo Caliente	14,003	.21	.10	1.34	.20
Questa	16,695	.38	.45	1.26	.36
Elida	23,700	.04	.06	1.11	.04
Bloomfield	28,097	.80	.62	1.37	.79
Jemez Springs	39,354	.22	.19	.59	.20
Exhibit: Albuquerque	9,396	30.47	26.49	1.05	31.30

*Includes units for early childhood, special education, vocational education, and bilingual programs

**Units adjusted by state's training and experience index

Source: Unpublished data supplied by New Mexico Legislative School Study Committee to Legislators' Education Action Project of the National Conference of State Legislatures.

tricts in the pupil weighting program still flows through the basic grade-level weights which a district is relatively powerless to manipulate for fiscal purposes (See Table 11). In short, weighting systems can encourage districts to identify more educational needs, and this in turn can result in a greater level of support for the district, but the bulk of the need equalization still flows through basic grade categories. A key question legislators will be increasingly asking, however, is what the total pool of educational need units is in a district and statewide. Consequently, they may desire to ration need units to different types of districts while at the same time auditing and evaluating the response of local districts to the weighting system.

TABLE 10

PUPIL WEIGHTING PROFILES OF SELECTED UTAH DISTRICTS RANKED BY WEALTH 1973-74

			% of Weighted Pupil Units (WPU's) In				
District	Valuation/ WPU	% of State ADA	Special Schools	Handicapped	Voc. Ed.	Regular WPU's*	Total WPU's**
Wayne	$ 3,290	.1%	27.4%	5.3%	5.5%	60.3%	100.0%
Nebo	3,974	3.3	0.0	7.3	3.0	88.7	100.0
Tooele	4,652	2.2	3.1	6.8	3.6	85.8	100.0
Sevier	4,857	1.0	3.3	7.1	4.7	83.9	100.0
Beaver	5,628	.3	9.3	8.6	5.4	72.3	100.0
Garfield	6,596	.3	28.1	5.2	8.8	56.8	100.0
Morgan	7,378	.5	0.0	6.6	3.8	88.5	100.0
Iron	7,985	1.2	9.0	7.2	3.3	85.4	100.0
N. Summit	9,478	.2	8.1	6.3	4.9	79.7	100.0
Salt Lake	10,444	9.5	0.0	10.1	2.4	86.3	100.0
State		100.0	1.5	7.6	3.2	86.8	100.0

*These include pupil units by grade with adjustments for training and experience of teachers
**Total WPU's include the four previous categories and some other miscellaneous pupil units
Source: Utah State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts, 1973-74*, pp. 6-13.

TABLE 11

WEIGHTED PUPIL UNIT DISTRIBUTIONS BY PUPIL WEIGHTING STATES 1973-75

		Type of Weighted Pupil Unit				
State	Total Weighted Pupil Units	Grade-Level	Special Ed	Voc. Ed	Other	Sparsity
Florida	1,836,513	1,475,713	120,295	223,825	16,680	—
1973-74	(100.0%)	(80.4%)	(6.6%)	(12.2%)	(.8%)	—
New Mexico	361,618	315,105	14,552	6,980	12,027*	12,954
1974-75	(100.0)	(87.1)	(4.0)	(1.9)	(3.4)	(3.6)
Utah	356,430	281,433	30,220	11,442	28,369	4,966
1974-75	(100.0)	(79.0)	(8.5)	(3.2)	(7.9)	(1.4)

*Includes adjustment of pupil units by training and experience index
Source: NCSL Computations from relevant State Department of Education finance reports.

The Fiscal Impact of Weightings for Various Districts

Do pupil weighting systems significantly alter the flow of state educational aid? This hinges on the response of local districts to the weighting system in operation. Preliminary data indicate that need weightings have increased the flow of money to poorer districts in most but not all cases. Thus, in Florida, poorer districts that have expanded their vocational and special educational programs have reaped an additional aid benefit from the state, increasing their overall aid allotments by $41-$121 per pupil (See Table 12).

Yet, there are also factors which offset the need-based funding flows to poorer districts in pupil weighting states. In New Mexico, the poorer districts often have teachers with below average training and experience. Thus, their fiscal gain from greater need units is offset by the lower training and experience indices. Similarly, in Florida some rural poor districts have lost aid by a cost of living adjustment that has diluted their fiscal gains from the pupil weighting system.

Pupil weightings, however, provide for additional need discrimination among rich and poor communities. Urban communities which tend to be regarded as rich by most aid formulas have gained from the need weightings particularly when they have a compensatory education component or involve adult education. Weighting systems also have the important benefit of channeling aid to needy children wherever they live. This enables states to aid needy children in rich districts—a complex school finance problem noted in the *Rodriguez* case.

TABLE 12

STATE AID GAINS AND LOSSES DUE TO PUPIL WEIGHTING PROGRAM
SELECTED FLORIDA DISTRICTS
1973-1974

District	Average Weighted FTE*	Total FTE	Current EXP/FTE	Instructional EXP/FTE	True Valuation/ FTE	Additional Aid Per FTE Due to Need Factor
Washington	1.42	3,958	$1,168	$773	$18,371	+$121
Liberty	1.33	991	1,348	914	24,606	+ 68
Bradford	1.31	4,057	1,005	711	19,300	+ 63
Union	1.29	1,504	966	595	15,594	+ 53
Taylor	1.28	3,832	945	646	33,110	+ 41
Average	1.32	2,868	1,219	728	22,924	+ 69
Hardee	1.16	3,917	799	439	35,474	— 12
Osceola	1.16	7,468	886	652	85,566	— 1
Lee	1.16	26,346	959	642	55,942	— 11
Madison	1.15	3,578	960	630	24,874	— 20
Average	1.16	10,327	901	616	50,464	— 11
State	1.19	1,537,023	1,178	889	43,289	N.A.**

*FTE—Full Time Equivlaent pupil.
**N.A.—Not Applicable
Source: Computed from NCSL—LEAP educational finance data base.

In short, educationally needy districts have gained additional aid under the pupil weighting systems in operation. But, wealth equalization still remains the main vehicle for aid distribution. Other adjustments in the aid systems under study sometimes offset the fiscal gains under need equalization. It may be, however, that more time is needed to experiment with program weightings and district response to these weightings before aid systems become fully sensitive to variations in educational need. This makes the case all that much more impressive for educational needs assessment programs which can insure a closer fit of state aid and relative educational need and which may insure a positive response on the part of local districts to establishing high-cost programs for their needy students.

Summary Conclusions

Pupil weighting systems are a major new development in educational aid systems that seek to redistribute money according to educational need rather than local wealth considerations. They have been adopted in a comprehensive fashion in five states, three of which are studied in this chapter.

While there are several different ways in which state governments can aid local school districts with extraordinary educational need, many have adopted comprehensive or partial pupil weighting systems which pledge a higher level of state support for children with demonstrable educational needs. Pupil weighting systems generally involve consolidation of categorical grant programs into a state's basic educational aid formula. This insures that all school districts will be eligible for some funding based on educational need and it prevents the proliferation of many separate and sometimes conflicting educational funding systems.

Initial state experience with weighting programs indicates that districts are sensitive to both the fiscal and programmatic dimensions of these systems. Richer districts are especially sensitive to the fiscal incentives of special education weightings while poorer areas have eschewed these weightings for concentration on vocational education needs. Some districts then, may not have the ability or willingness to take full advantage of weighting systems while others will. Careful state scrutiny of local response to weighting systems is a must.

Pupil weighting systems are in early development. There is little inclination in the states that have them to give up pupil weighting systems though there will be continuing experimentation with changing pupil weightings and with developing more stringent regulations to prevent undue manipulation by local districts. Pupil weighting systems, unlike categorical grant programs, guarantee that all districts will share in state aid based on educational need. As districts identify legitimate educational needs, states will increase their fiscal support commensurately. A key management problem on the part of interested governments, however, will be the estimation of aggregate educational needs among different local districts.

Chapter III

Geographic Adjustments to School Aid Formulae

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I. Introduction

Many states employ specific fiscal adjustments in their school aid formulae which provide additional aid to selected rural, urban, and suburban areas. The rationale for these subsidies is not always stated but generally entails a policy to compensate for characteristics of given areas which merit preferential treatment for educational, fiscal and/or explicitly political reasons. These characteristics include population density or sparsity, extraordinary school or nonschool tax rates, differential prices for education services, concentrations of hard to educate pupils, or other such characteristics which are beyond the control of a particular local district and which can inhibit its ability to finance local schools. This chapter describes the nature of these aid adjustments in the states that have them, indicates what areas are most affected by these measures, evaluates the rationale for and fiscal impact of these formula adjustments, and offers summary conclusions about the future role of these aid adjustments in future state school finance reforms.

II. Urban Adjustments in State School Finance Systems

A. *The Basis for Urban Adjustments*

Legislative debate over geographic area adjustments in recent years has focused increasingly on the costs and needs of city schools. In earlier decades, however, the problems of urban schools received little legislative attention. It was not necessary. Cities had sound property tax bases. They used their wealth to establish themselves as innovative leaders in elementary and secondary education. They were most prominent in creating high school opportunities for the general populace, instituting a broad variety of curricula within high schools, and initiating other costly programs, such as special education of the mentally and physically handicapped and vocational education. This fiscal and educational dominance by central cities of their metropolitan areas continued up until World War II. The emergence of large scale suburbs in the late 1940's, however, clearly marked the end of central city dominance.

Unlike their central cities, the new suburbs were able to make education their principal public activity. Relatively free from the burden of providing traditional municipal services, they were able to become educationally more attractive than the cities. Large city expenditures started moving "in a variety of directions relative to the national norms, but (over the past 20 years) they all have moved approximately in the same downward direction relative to their own state and metropolitan contexts."[1] This trend has been firmly established since the mid-1950's and is rooted in circumstances which are unlikely to change in the foreseeable future.

Some city tax bases are alarmingly deficient compared to state tax bases. In New Jersey, for example, the 17 largest urban districts have an average equalized assessed valuation per pupil almost 30 percent less than the state average, Newark and Camden having 62 percent and 66 percent less.[2] Boston, Buffalo, Baltimore, Jacksonville, Wichita and Albuquerque have been almost as disadvantaged as the New Jersey urban districts. To be sure, city property tax bases in most cases remain high compared to state averages.[3]

But except in the west, the property wealth of cities has been declining significantly relative to their surrounding metropolitan areas during the past 20 years.[4] Yet, urban education costs have had to respond to suburban cost pressures.

According to one well-known scholar on the subject of city-suburban cost differences, "the common metropolitan environment, which in former years had a salutary effect on suburban education, now has a debilitating effect on central city education as the metropolitan area determines the level of costs without providing the resources for meeting those costs."[5] This is especially true regarding salaries, which account for 80-85 percent of school systems' operating budgets. Suburban jurisdictions also exert cost pressures as a result of their lowering of class size, which translates into requirements for hiring more teachers and other instructional personnel to teach the same number of students, which increases total salary costs. Suburbs additionally generate cost pressures by increasing the breadth and depth of program offerings, expanding special services, such as guidance counseling and special reading disgnostic services, and constructing more roomy and attractive school plants. Yet, traditional state aid formulas generally do not help cities in this situation, since the formulas are patterned after conventional concepts of allocating state aid to make up for local property tax base inadequacy in providing for *minimum* foundation programs, which were designed to help low-spending rural districts. Cities' apparently high wealth and ex-

penditures compared to state averages have excluded cities from assistance under such formulas.

The suburban competition problem has been compounded by the relative decrease in income which cities have suffered vis-a-vis their metropolitan suburban neighbors. By 1959 the porportion of families with incomes under $3,000 was almost 50 percent greater in central cities than in their outlying areas, and the disparity even larger for SMSA's over 1,000,000.[6] By 1967 median family income was only $7,813 in central cities and $9,367 in outlying metrpolitan areas.[7] Thus, when considering income alone, in order to offer educational systems on a par with their suburban neighbors' educational standards, cities would have to levy a 20 percent higher tax burden on their incomes. State equalization formulas, however, generally have not recognized or compensated for income differences among communities.

Cities are also hobbled by extraordinary noneducational tax burdens necessitated in large part by their concentrations of the young and old dependent on public support. Central city total local taxes for the noneducational public functions, compared to outlying areas in large SMSA's, were 91 percent higher in 1967.[8] Large city per capita expenditures for noneducational functions were 53 percent higher than state averages for police protection, 91 percent higher for fire protection, 87 percent higher for refuse collection and disposal, 66 percent higher for sewers, and 70 percent higher for health and hospital services in 1969-70.[9] These noneducational cost pressures on city tax bases have not diminished over the years. As cities continue to lose industrial and commercial activity to the suburbs, continue to gain high-cost residents, and generally experience a relative (and sometimes absolute) decline in their tax bases compared to those of their outlying suburbs, the extent urban noneducational outlays are creating more fiscal competition for urban educational expenditures.

Also urban school finance dollars do not buy the same education resources as the dollars of rural areas and suburban areas. Instructional costs in cities are usually higher than elsewhere for two reasons. First, cities (and their suburbs) pay significantly higher starting salaries than rural areas, both at the bachelors' and advanced degree levels.[10] One might say this is a matter of choice for cities, but it seems doubtful that many qualified teachers could be induced to work in central city districts at the starting salary levels paid teachers in rural areas if only because of the cost-of-living variations between metropolitan and rural areas.

Second, cities also pay higher average teacher salaries than do suburban districts because urban district teachers often have more seniority than their suburban counterparts. And as one noted legal scholar has pointed out, "the tenure system leaves districts little choice as to whether such [experienced] teachers are retained or replaced with inexperienced teachers."[11] They must be retained and paid for their seniority. But until 1973, state minimum salary schedules which paid more for different training levels and for seniority were the only state vehicle for recognizing and compensating for the cost differences in providing for equivalent educational resources. Salary schedules of this sort, however, are found mainly in the South and are designed primarily to provide a salary floor for rural districts.

Finally, urban school finance requires special attention because of cities' disproportionate numbers of low achieving, low income, special education and vocational education students, and of students from different linguistic and cultural backgrounds. Cities in New York State, for example, have twice the proportion of students scoring at least two grade levels below the state norms in reading, and more than three times as many children from families receiving AFDC payments, when compared to outlying school districts.[12] Similarly, in 17 of the nation's largest cities, public schools have more than three times the proportion of Title I eligibles in their enrollment as their respective states.[13] In the same vein, the 17 major city school districts in New Jersey have 50 percent more students in special education than does the state as a whole. These same city districts also have almost three times the percentage of Spanish-surnamed pupils as the state average.[14] Nonwhite school populations for the 15 largest cities in the U.S., always high compared to suburbs, have increased tremendously in recent years, from a district average of 38 percent in 1960 to 56 percent in 1970.[15]

B. *State Attention to Urban School Finance Problems at the Time of* Serrano

Before the *Serrano* v. *Priest* decision of 1971 states had responded to urban school finance problems in a variety of ways. Following the lead of the federal government's Elementary and Secondary Education Act Title I programs, 16 states had enacted legislation which focused additional resources on compensatory education for the educationally disadvantaged, most of whom lived in urban areas. From a meager funding of $27 million or so in 1966-67, the states were set to allocate more than $168 million in 1971-72, although four states, California, New York, Ohio and Michigan, accounted for 87 percent of the total. (See Table 1.) During this time while state categorical compensatory education programs were growing in number and size, 11 states chose to make major adjustments in their general education aid formulas to provide extra funds for urban education. Of these 11 states, 6 had and 5 had not enacted state compensatory education programs.

Popular formula adjustments were those designed to raise the amount of foundation program entitlement for urban districts by means of some simple, "objective" criteria. These objective criteria, on the one hand, obviated the need to mention by name specific districts to be aided, but, on the other hand, bore no direct relationship to the specific urban school finance problems discussed earlier in this paper. Maryland and Pennsylvania used population density as a criterion to qualify selected cities for higher state basic aid entitlements.[a] Pennsylvania also

[a] **Maryland** provided $50/enrolled pupil extra entitlement for districts with a population density of 8000 or more per square mile. Only Baltimore qualified. **Pennsylvania** provided an additional entitlement up to $250 per Weighted Average Daily Membership (WADM) for districts with a population density of more than 10,000 per square mile, with higher spending districts qualifying for the higher density entitlements. Of the state's 13 largest cities, only seven qualified, however, 13 suburban and small town districts also qualified.

used school district size as a criterion to qualify its large districts for extra state basic aid, as did Illinois, New York, and Ohio.[b] While funneling significant funds into cities, these state legislative adjustments to basic school aid formulae were non-specific responses to urban school finance problems.

Only Ohio's adjustment, of five state adjustments noted above, attempted to relate its special aid to a specific problem of urban schools, that is, their disproportionate numbers or concentrations of hard-to-educate students. To qualify for Ohio's "Municipal Overburden" education funds, large districts had to have either half or more of their pupils classified as educationally disadvantaged or at least 20 percent ADC recipients among the districts' ADM.[c] Pennsylvania also had a formula adjustment (a second one, in addition to the one reported above) which was similar to Ohio's in basing additional state aid entitlement on concentrations of hard-to-educate students. This "poverty factor" adjustment first raised all districts' state basic aid entitlements by $140 for each low income pupil. However, when a district's percentage of low income pupils exceeded 15 percent of ADM, the district was entitled to $25 to $125 extra per low income pupil.[d] In both Ohio's and Pennsylvania's adjustments for disadvantaged students, concentrations of these students, rather than simply the number of such students in a district, was important in determining which districts receive aid (Ohio) and how much aid was available (Ohio and Pennsylvania).

Five other states, Missouri, New Jersey, Minnesota, Washington and Nebraska, also adjusted their basic aid formulae to the special needs of students who were classified as "disadvantaged" or who were from low income families, although the concentration factor was ignored. Similar to the first part of Pennsylvania's "poverty factor" adjustment just mentioned, Missouri raised basic aid entitlements $125 per AFDC student. New Jersey, Minnesota and Washington allowed from 0.10 to 0.75 additional pupil units for "disadvantaged" students when calculating a district's foundation or minimum aid program entitlements.[e] Nebraska double-counted for "disadvantaged" students.[f]

Most density, district size and disadvantaged/low-income pupil adjustments adopted in the pre-*Serrano* period were subject to the same state-local cost sharing arrangements of the affected states' general aid formulae. Ohio's "municipal overburden" adjustment and Pennsylvania's "poverty factor" adjustment were the sole exceptions, as these were 100% state funded.[g] Three states, however, chose to adjust their general aid formulae to aid cities by using a different definition of school district wealth than that normally used in calculation of state and local shares of basic state education aid programs. Mary-

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[b] **Pennsylvania**—Districts qualifying for the population density bonus which had WADM of more than 50,000 received 19 percent of the actual costs of instruction multiplied by the districts' WADM. Only Pittsburgh and Philadelphia qualified for this "super density" adjustment.

Illinois—Districts with over 10,000 Weighted Average Daily Attendance (WADA) qualified. Their pupil units (WADA) were increased, thereby increasing their entitlement under the state's foundation program.

District Size (WADA)	Bonus Increase in WADA	Districts Participating
10,000 - 19,999	4%	18
20,000 - 29,999	8%	4
30,000 - 199,999	12%	Rockford
200,000 plus	16%	Chicago

New York—The state basic operating aid entitlement was increased by 10% of approved state and local operating expenses up to $760/WADA for all districts for the first 1500 WADA. Districts over 8000 WADA also received a second stage correction: their basic entitlement was increased by an additional 10 percent of approved state and local operating expenses up to $760/WADA for 60 percent of all WADA in excess of 8000. The six largest cities (New York, Buffalo, Rochester, Syracuse, Yonkers and Albany), however, which did *not* receive the foregoing second stage correction, had a second stage correction tailored expecially for them: their basic operating *and growth* entitlement was increased by 17.5 percent in addition to the first 1500 WADA first stage correction. Districts which had approved state and local operating expenses over $760/WADA up to a maximum allowable $860/WADA could get either 1/2 or all of the above "size correction" due them, depending on the basic operating aid plan they chose.

Ohio—Termed the "Municipal Overburden—Special Needs" provision, districts with over 20,000 students qualified for aid, as did districts contigious to such districts, providing they also had at least 50 percent of their pupils classified as educationally disadvantaged. These districts received $11.62 times the districts' ADM. Toledo, Akron, Dayton, Youngstown, Canton and East Cleveland qualified. Districts with over 70,000 students received slightly better treatment, providing they had resident ADC recipients, ages 5-17, comprising at least 20 percent of a district's ADM. These districts received $14.56 times a district's ADM. Cleveland, Columbus and Cincinnati qualified. Notice, while the qualifying criteria included ADC or educationally disadvantaged incidence, the formula adjustments were made for a qualifying district's total student membership (ADM). The payments were to increase to $20 and $25 the next year.

[c] See preceding footnote for fuller description.

[d]

Low Income Pupils As a % of ADM	Extra Entitlement Per Low Income Pupil
15 - 19.9%	$ 25
20 - 24.9%	50
25 - 29.9%	75
30% and above	125

[e] **New Jersey**—0.75 Additional pupil unit count for each AFDC student, which increases a district's "resident weighted pupils", thereby the district's "Minimum Support Aid." This was worth $82.50/AFDC student in 1971-72.
Minnesota—0.5 Additional pupil unit count for each AFDC student. This was worth $300/AFDC pupil in 1971-72.
Washington—0.1 Additional pupil unit count for pupils qualifying for programs for the "culturally disadvantaged"; basically 1/4 of all AFDC students were counted. This was worth $36.50 per counted AFDC pupil in 1971-72, and was funded totally at $1,031,490.

[f] **Nebraska** double counted all students enrolled in an approved program for the "culturally deprived." This extra entitlement, therefore, varied not only with the basic pupil unit cost as did the N.J., Minn. and Washington adjustments, but also depending whether the qualifying students were in Kingergarten, grades 1-6, 7-8, or 9-12. Thus, this factor was worth $225 for designated pupils in Kindergarten, $450 for grades 1-6, $500 for grades 7-8 and $550 for grades 9-12 in 1971-72.

[g] Because these Ohio and Pennsylvania funds were not earmarked for compensatory education purposes, they were not considered as categorical compensatory education funds, but as basic aid formula adjustments.

TABLE 1

STATE COMPENSATORY EDUCATION PROGRAM FUNDING
(SELECTED YEARS THROUGH 1971-72)

State	Initial Comp. Educ. Program Legislated	Total State Compensatory Education Allocations (in thousands) 1966-67	1969-70	1970-71	1971-72
Hawaii	1961	$ 468*	$ 890*	$ 1,175*	$ 1,214*
California	1963	7,652	28,354	42,021	44,349
Michigan	1964	11,484	15,201	21,500	26,400
Connecticut	1965	6,095	8,188	8,375	7,987
Pennsylvania	1965	1,000	1,000	1,000	1,000
Washington	1965	n.a.[d]	2,100[b]	4,000[b]	3,200[b]
Oregon	1967		1,000	1,385	1,000[a]
Ohio	1967		16,472	22,254	28,670
Wisconsin	1967		2,000*	1,975*	2,000[a]
New York	1968		52,000	52,000	47,000
Rhode Island	1968		2,000	2,000	2,000
Illinois	1968		-0-	200	805[c]
Arizona	1969		100[c]	200[c]	100[c]
Colorado	1969		2,000	1,547	1,000
Delaware	1969		500	500	expired
Massachusetts	1971				1,500[c]
Column Totals		$26,699	$131,805	$160,132	$168,225

*Estimate

(a) Only one district in Oregon (Portland) and in Wisconsin (Milwaukee) benefited from these "state" compensatory education programs.

(b) This figure only includes funds for the "Urban, Rural, and Racial Disadvantaged" educational program, legislated in 1969. Data are not available on Washington State's other compensatory education program, the "Culturally Disadvantaged Program", initiated in 1965 as an adjustment to the state's general education aid formula.

(c) Exclusively for bilingual education programs.

(d) Not available.

Table Sources: Stanford Research Institute, Educational Policy Research Center, *State Compensatory Education and Bilingual Programs* (Res. Memo EPRC 2158-25) (Menlo Park, Calif.: Stanford Research Inst., Feb. 1975); Thomas L. Johns, ed., *Public School Finance Programs, 1971-72* (DHEW Publication No. (OE) 73-00001) (Washington, D.C.: GPO, 1972), especially Table 2, page 4; and various state department of education officials, state legislative staff and local education agency officials.

land and New Jersey chose this approach in addition to their previously mentioned adjustments to basic aid entitlements. Rhode Island relied on this method to supplement its state compensatory education program. Rhode Island and Maryland both incorporated income measures into their definition of district wealth in their general education aid formulae. Because the income positions of the major cities of the two states were less than state average, the states' use of income measures to partially define district wealth, in effect, reduced the apparent wealth of the large city districts, thereby setting up calculations of larger state shares and smaller local shares of the basic aid programs than would otherwise have been the case.[h]

New Jersey adjusted district wealth by a less direct method than use of income measures to reduce apparent district wealth. The Garden State, as already noted, included an additional weighting for disadvantaged (AFDC) students when calculating districts' weighted pupil units for purposes of determining state minimum aid entitlements. However, the weighted pupil figure is then used again, in the calculation of the equalized assessed valuation (EAV) per weighted pupil. Thus, in simple terms, a district with $20,000 EAV/pupil and 8,000 pupils, including 2,667 AFDC pupils, would have a district wealth of $16,000 EAV/weighted pupil, thereby qualifying such a district for more state aid under New Jersey's guaranteed valuation equalization aid program than if it had to participate in such aid program with its wealth determined without regard to its AFDC students.[i]

[h] **Rhode Island** used the ratio district median family income bore to state median family income to modify equalized assessed valuation of real and tangible property. Rhode Island had a median family income of $9,737, while Providence had $8,430, Pawtucket $9,265, Woonsocket $9,667, Newport $8,592 and Central Falls $7,778 (1970).[16]

Maryland used "net taxable income" (from state income tax returns) summed with equalized real property valuation. Maryland had a net taxable income per pupil of $12,136, while Baltimore had $9,091 (Sept. 1971).[17]

[i] 2667 AFDC students x .75 additional pupil units = 2000 additional pupil units. 2000 additional p.u. + 8000 pupils = 10,000 weighted p.u. $20,000 EAV/p. x 8000 pupils = $160,000,000 total EAV. $160,000,000 total EAV ÷ 10,000 weighted p.u. = $16,000 EAV/wt'd p.u.

Michigan had introduced an adjustment for municipal overburden in 1964-65, and had gradually increased funding of the adjustment to $20 million in 1971-72, with $14.6 million going to Detroit. No other state had a formula adjustment explicitly for municipal overburden.

Finally, an old and tested method of aiding urban districts should be mentioned as one which numerous states had on the books at the time of *Serrano*. Average daily membership (ADM) to determine state aid entitlements had often been used rather than average daily attendance (ADA). High truancy rates in cities made this an attractive adjustment for urban districts, since ADM in cities could provide up to 10 percent more aid than ADA.

C. *The Changes Since* Serrano *in Adjustments for Urban School Finance Problems*

Twenty-two states have implemented overhauls of their school finance systems since the *Serrano* decision of August 1971.[j] In many cases cities have fared well. They often have received proportionally greater increases in state basic education aid than is true statewide, or, in a few cases, they have obtained substantial inflows of state compensatory education funds. Dire warnings concerning the potential negative impact of *Serrano*-inspired wealth neutralization legislation on relatively high wealth large city school districts were either unnecessary or effective. State legislatures, by and large, have dealt somewhat sympathetically with urban school finance problems.

(1) State Compensatory Education Program Changes

Categorical compensatory education programs have been one of the most common mechanisms used by the states to channel money to localities with large numbers of disadvantaged students. Funds for state programs have increased 42% from 1971-72 to 1974-75. (See Table 2). Since *Serrano*, however, only four additional states (Florida, Utah, Texas and Virginia), enacted programs, and one of these (Florida) presently is not funding its program. Meanwhile Colorado let its program expire, and New York replaced its program with general aid formula modifications targeted on disadvantaged students.

Further, only one state accounted for the bulk of the national increase in state compensatory education funds since *Serrano*. California increased its funding by 232 percent during this period. The state's compensatory educational programs now match the Federal Government's Title I ESEA programs.[k] California's excellent effort at providing funds for disadvantaged students, however, is somewhat in contrast with the state's treatment of urban school districts in the 1972 reform of the state's school finance system. An examination of the impact of this reform on large city school districts shows that they recevied less increases in basic state operating aid per pupil than did other districts in the states, and generally fared no better than other districts when increases in total state operating aid are compared, although Sacramento and Fresno were exceptions in both cases.[l] Thus, it appears that California chose to meet urban school finance needs primarily by increasing its state compensatory education programs rather than by revising its basic education aid formula.

California excepted, all other 11 states known to have funded compensatory education programs in 1974-75 increased their total allocations less than 20 percent from 1971-72. (See Table 2.) Moreover, when comparing these 11 states' recent funding for state compensatory education programs to federal allocations for Title I ESEA in the same states during 1974-75, the state program funds amount only to 23 percent of the Federal program funds. (See Table 2.) Considering that 14 additional "urban" states[m] have *no* funded categorical compensatory education programs at all, state compensatory education programs today, therefore, do not appear to be substantial forces in meeting the needs of cities' disproportionate numbers of disadvantaged students. The exceptions noted (California and Ohio) only show what is possible; they do not disprove the foregoing general observation.

(2) State Bilingual Education Programs: A New Front

Meanwhile many states have initiated bilingual education programs in order to meet the special needs of children from homes where a language other than English is dominant. The 1968 Federal Bilingual Education Act, which became Title VII of The Elementary and Secondary Education Act, its subsequent, substantial funding, and the 1974 U.S. Supreme Court decision in *Lau. v. Nichols* were landmark stimuli in focusing local reformers' and ultimately state attention on bilingual education. Only three states had such programs legislated and funded at the time of *Serrano*. By 1974-75, however, 13 states had legislated and funded bilingual education programs, while another state had mandated bilingual instruction without legislation.[n]

As Table 3 shows, four states have made relatively strong efforts in bilingual education: Illinois, Massachusetts, Colorado and Louisiana.[o] Each of these states'funding approximates or exceeds significantly the funding for bilingual education provided by the Federal Government's Title VII ESEA. In the case of Illinois, phenomenal in-

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[j] Admittedly, listing "reform" states involves some value judgments. The twenty-two states considered here are Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Michigan, Minnesota, Montana, New Jersey, New Mexico, North Dakota, Ohio, Texas, Utah and Wisconsin.

[k] No other state comes close to such a state compensatory education effort. Ohio is next best, with only 56% state comp. ed. monies compared to Federal Title I allocations. (See Table 2, last column.)

[l] See Table 9.

[m] Defined as the states which have approximately 50% or more "urbanized" population, which is the population of any area consisting of a central city or cities of 50,000 or more inhabitants (and of the surrounding closely settled territory for such city or cities) which is treated as an urbanized area by the Bureau of the Census for general statistical purposes.[18] The 14 additional urban states are Arizona, Colorado, Delaware, Florida, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, Nevada, New Jersey, and New York. Massachusetts, technically has a state compensatory education program, but it is totally aimed at bilingual education, therefore, is discussed in the context of state bilingual education programs which follows.

[n] Table 3 lists the 13 states; Pennsylvania is the state which has mandated bilingual instruction without legislation.

[o] Louisiana's program, however, is aimed at fostering French as a second language rather than at meeting the needs of children from homes where a language other than English is dominant.

TABLE 2

STATE COMPENSATORY EDUCATION PROGRAM FUNDING THROUGH CATEGORICAL GRANTS: CHANGES 1971-72 TO 1974-75 AND STATE FUNDING COMPARED TO FEDERAL TITLE I ESEA ALLOCATIONS
(Dollars in Thousands)

State	Initial Comp. Educ. Program Legislated	Total State Compensatory Educ. Allocations			Increase (Decrease) 1971-72 to 1974-75		Total Federal Title I ESEA Allocation 1974-75	State Comp. Educ. Allocations as a Per Cent of Federal Title I ESEA Allocations (1974-75)
		1971-72	1973-74	1974-75				
Hawaii	1961	$ 1,214*	$ 1,564*	$ 1,564*	$ 350	29%	$ 5,350	29%
California	1963	44,349	169,567	147,038	102,689	232	155,134	95
Michigan	1964	26,400	27,000	27,500	1,100	4	80,359	34
Connecticut	1965	7,987	7,000	7,000	(987)	(12)	17,633	40
Pennsylvania	1965	1,000	1,000	1,000	-0-		90,760	1
Washington	1965	3,200 (a)	31,000 (a)	6,100 (a)	2,900	91	25,512	24
Oregon	1967	1,000	1,000	1,000	-0-		17,756	6
Ohio	1967	28,670	33,337	33,337	4,667	16	59,706	56
Wisconsin	1967	2,000	4,516	2,900	900	45	30,025	10
New York	1968	47,000	47,000	-0- (c)	(47,000)	(100) (c)		(c)
Rhode Island	1968	2,000	2,000	2,000	-0-		6,826	29
Arizona	1969	(b)						
Colorado	1969	1,000	expired		(1,000)	(100)		
Delaware	1969	expired						
Illinois	1971	(b)						
Massachusetts	1971	(b)						
Florida	1973		-0-	-0-				
Utah	1973		600	600	600		6,346	9
Virginia	1974			5,163	5,163		39,272	13
Texas	1975			(d)				
Column Totals		$154,820 (b)	$297,684	$235,202	$69,382	42%	$534,681	
Column Totals Less N.Y.		$118,820	$250,684	$235,202	$116,382	98%		44%
Column Totals Less N.Y. & Calif.		$ 74,471	$ 81,117	$ 88,164	$ 13,693	18%	$379,545	23%

*Estimate

(a) This figure only includes funds for the "Urban, Rural, and Racial Disadvantaged" educational program, legislated in 1969. Data are not available on Washington State's other compensatory education program, the "Culturally Disadvantaged Program", initiated in 1965 and terminated in 1975 as an adjustment to the state's general education aid formula.

(b) The categorical funds for state bilingual education programs which were included in this column in Table 1 have been removed in this Table 2. They will be included in Table 3, "State Legislated and Funded Bilingual Education Programs (Arizona $100; Illinois $805; and Massachusetts $1,500; total $2,405; in thousands of dollars).

(c) New York State in 1974 replaced its Urban Education Program, that is, its categorical compensatory education program, with general aid formula revisions which focus additional funds on pupils with recent poor performance on educational achievement tests in reading and math. The funds for this general aid revision are estimated at $146 million in 1974-75.

(d) Texas enacted a state compensatory education program in 1975, appropriating $25.4 million for 1975-76.

Table Sources: Stanford Research Institute, Educational Policy Research Center, *State Compensatory Education and Bilingual Programs* (Res. Memo EPRC 2158-25) (Menlo Park, Calif.: Stanford Research Inst., Feb. 1975); Thomas L. Johns, ed., *Public School Finance Programs, 1971-72* (DHEW Publication No. (OE) 73-00001) (Washington, D.C.: GPO, 1972), especially Table 2, page 4; and various state department of education officials, state legislative staff and local education agency officials.

TABLE 3

STATE LEGISLATED AND FUNDED BILINGUAL EDUCATION PROGRAMS[a]
(Dollars in Thousands)

State	Initial Legislation	State Allocations 1971-72	1972-73	1973-74	1974-75	Total Federal Title VII ESEA Bilingual Education Grant Awards 1974-75	State Allocations As a % of Federal Title VII ESEA Grant Awards 1974-75
Alaska				$ 200	$ 200*	$ 705	28%
Arizona	1969	$ 100	$ 100	400	700	2,565	27
California	1972		1,000	4,000	4,000	21,383	19
Colorado	1975				[b]	549	-0-[f]
Illinois	1968	805	2,370	6,000	8,000	3,414	234
Louisiana	1968		500	500	1,300	1,596	81
Massachusetts	1971	1,500	2,500	2,500	4,000	2,075	193
Michigan	1971		88	-0-	-0-[c]	832	-0-[f]
New Jersey	1974				250[d]	2,289	11[f]
New Mexico	1969	100	300	700	1,000	3,158	32
New York	1973			1,500[e]	1,500[e]	13,250	11
Rhode Island	1974				50	1,033	5
Texas	1973			700	2,000	15,347	13
Column Totals		$2,505	$6,858	$16,500	$23,000		
U.S. Totals					$23,000	$78,248	29%
U.S. Totals Less Illinois &Mass					$11,000	$72,759	15%

*Estimate–

(a) Only included are programs based on state legislation and categorical funding. Thus bilingual education programs in states such as Washington, which are supported from state compensatory education funds, or in Pennsylvania, which are supported solely by local education agencies, are *not* included.

(b) Major new program to commence in 1975-76, funded at $2,550,000.

(c) $30[illegible],000 allocated for 1975-76.

(d) Major new program to commence in 1975-76.

(e) In addition, significant portions of local districts' allocations of state funds under the Urban Education Program (until June 1974) or Chapter 241 Program (since July 1974) have been earmarked by local districts for bilingual education: $3,750,000 in 1973-74.

(f) Will be much higher in 1975-76.

Table Sources: Stanford Research Institute, Educational Policy Research Center, *State Compensatory Education and Bilingual Programs* (Res. Memo EPRC 2158-25) (Menlo Park, Calif.: Stanford Research Inst., Feb. 1975); Thomas L. Johns, ed., *Public School Finance Programs, 1971-72* (DHEW Publication No. (OE) 73-00001) (Washington, D.C.: GPO, 1972), especially Table 2, page 4; U.S. Office of Education, *ESEA Title VII Project Summary, By State and Project Location, Giving 1975 Grant Award Totals* (Washington, D.C.: USOE, mimeograph, December 12, 1975); Intercultural Development Research Association Newsletter (San Antonio, Texas: IDRA, September 1975), p. 2; and various state department of education officials, state legislative staff and local education officials.

creases in funding of its bilingual education program accompanied the state's 1973 general school finance reforms; bilingual education funding rose from $805,000 in 1971-72 to $8,000,000 in 1974-75, the top state funding in the nation. These funds are especially important to Chicago as "nearly two-thirds of (the number of children served) reside in the Chicago area."[19] As will be discussed later, Illinois chose a multi-pronged approach to aid its largest city.

Colorado's bilingual education legislation was not enacted until 1975, two years after the state's major 1973 general aid formula revisions. The 1975-76 appropriation was $2.5 million, which is 455% of the 1974-75 Federal Title VII funds awarded to the state. One of Colorado's 1973 general aid formula revisions also substantially benefited Denver, despite that city's relatively high wealth. So, Colorado, like Illinois, has chosen a multi-pronged approach to aid its largest city.

In the Northwest and Midwest, where children eligible for bilingual education programs are concentrated in the cities, bilingual aid programs can be seen as a fairly direct way to help cities undertake the tough job of providing an adequate education for their linguistically diverse student populations. Michigan, New Jersey, New York and Rhode Island, in addition to Illinois and Massachusetts, fund state programs. The funding commitments of these four states are quite small, however, compared to the Federal Title VII ESEA funds going into their states. (See Table 3).

In the Southwest and West, where children eligible for bilingual education programs are more spread out between urban and rural areas, bilingual aid programs obviously have less impact on cities. Nevertheless substantial funding of bilingual programs would still be an important way for states to assist cities in their difficult educational tasks. Next to Colorado, New Mexico appears to have made the second greatest effort in the Southwestern and Western areas of the country. New Mexico's effort, however, is only one-third of the Federal Title VII ESEA

allocations in New Mexico. California and Texas have both allocated more funds for bilingual instruction than either Colorado or New Mexico, but their state funds are only 19% and 13%, respectively, of the Federal Title VII ESEA allocations in their states. (See Table 3.).

Nationwide in 1974-75, states allocated $23 million for state legislated and funded bilingual education programs. This figure is almost ten times what it was in 1971-72. Similarly the number of states with legislation and funding on the books has grown from only three at the time of *Serrano*, to thirteen at present. Nevertheless, this growth must be placed in perspective. Even considering that state funds for bilingual education might approach $30 million when adding in state compensatory education funds and state department of education general funds used for bilingual education purposes, state program dollars would still be only 38% of Federal Title VII ESEA dollars for bilingual instruction, and are only 13% of state compensatory education program dollars. As for meeting the need in the area of bilingual education, Congressman Edward R. Roybal of California estimates that the Federal Title VII ESEA funds in FY 74 served only 3% of the five million children who are eligible for bilingual programs.[20] Or to look at this another way, if it could be presumed that the total Federal Title VII funds ($78 million in 1974-75) were spent equally on each eligible child (total 5 million), the additional funds available to participating school districts would be only $16 per child. Yet the federal funds are roughly three times the state funds! In short, except for Illinois, Massachusetts and Colorado, state bilingual programs today do not appear to be substantial forces in meeting the needs of cities' disproportionate numbers of linguistically disadvantaged students.

(3) Density and District Size Formula Adjustments

During this post-*Serrano* period states also have been quite active in making new adjustments to state basic education aid formulae for the purpose of responding to urban school finance problems. At the time of *Serrano* in 1971 many formula adjustments were based on population density and school district size. In 1971-72 five states employed such simple adjustments to increase basic state aid entitlements for cities. Three of the five states have now abandoned them, and only one of the post-*Serrano* reform states (Colorado) has opted to use an adjustment of this type.[p]

(4) Student Needs Formula Adjustments

During the past four years state formula revisions have been much concerned with tying state general education aid to individual student educational needs. Prior to *Serrano*, many states determined district entitlements by counting kindergarten, elementary and high school students differently, often assigning pupil weights of 0.5, 1.0 and 1.1 to 1.25, respectively. By and large these were the only differential student needs recognized, although as was discussed earlier, several states recognized low income or "disadvantaged" student needs.

Since *Serrano*, states have been very active in enacting more complex pupil weighting schemes than those utilized earlier. Special education and vocational education, in particular, have been the focus of most of these new schemes. (See Chapter II, "Pupil Weighting Programs in School Finance Reform.") But strong attention has also been paid to the needs of low income or "disadvantaged" students, of which cities have disproportionate numbers. Minnesota revised its scheme which gave a flat 0.5 additional pupil unit entitlement for each AFDC student to one which now provides from 0.5 to 1.1 additional pupil unit entitlement, depending on the concentration of AFDC students in the school district; the greater the concentration, the higher the weighting.[q] Illinois enacted two schemes. Both consider the number of ESEA Title I eligible students in a district, but each plan is part of a separate basic aid formula and districts may choose to participate under whichever formula benefits them the most.[r] The first scheme is similar to Minnesota's formula adjustment when first adopted in that a flat 0.45 additional pupil unit entitlement is given for each Title I eligible student. The second scheme is similar to Minnesota's relatively new approach, in that 0.0 to 0.75 additional pupil unit entitlement is given, depending on the concentration of Title I eligibles in the school district.[s]

Ohio has discarded its earlier urban adjustment which used AFDC and educationally disadvantaged student concentration, along with school district size, as criteria for providing extra funds to nine of the state's large urban districts. In its place, Ohio had adopted a "Disadvantaged Pupil Impact Aid" (DPIA) program which will now provide special aid to 82 districts. Like Pennsylvania's "poverty factor" adjustment, Ohio's DPIA program is 100% state funded and provides varying flat additional entitlements per pupil depending on the concentration of

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[p] Illinois (1973), New York (1974) & Ohio (1975) abandoned district size adjustments; Maryland has retained its density adjustment and Pennsylvania has retained its combination density and district size adjustment. Colorado (1973) adopted two measures of population density as criteria for a formula adjustment designed to benefit only Denver (AFDC incidence was a third criterion). The adjustment provided for an equalization program support level for Denver 15% higher than the guaranteed $25/pupil for each local mill levied (1974).

[q] Concentrations of over 11% AFDC students in a district warrant the highest weighting of 1.1 pupil units additional.

[r] Illinois retained its Srayer-Haig foundation program, but established a district power equalizing option with an upper limit on the local revenues to be equalized by the state. Two-thirds of the state's districts, which enroll 85% of the state's pupils, elected the DPE option.[21]

[s] Concentration increases determined as follows:[21a]

$$.375 \times \frac{\text{Per cent of district pupils eligible for Title I}}{\text{State Title I eligible students}} = \text{0.0 - 0.75(b) additional pupil units}$$

$$\text{Best six months State WADA(a)}$$

(a) WADA here is Weighted Average Daily Attendance including usual grade weightings only.

(b) 0.75 is the maximum allowable

low income students.[t] Unlike Pennsylvania, however, Ohio's new approach calculates a local entitlement by multiplying the additional per pupil entitlements by enrollment (ADM), rather than by the district's number of low income students.

Somewhat like Ohio, New York recently adopted a formula adjustment to supercede both a sizeable categorical compensatory education program and its district size adjustment. New York's new adjustment focuses on low educational achievement and provides an additional pupil unit entitlement of 0.25 for each pupil scoring low in the state's reading and mathematics achievement tests for the 1971-72 and 1972-73 school years. This is the first adjustment in the country which bases state general aid on low achievement test scores, although Michigan, California and Virginia have utilized low achievement test data to determine how much money a district qualifies for in their categorical compensatory education programs.[u] New York's five largest cities (New York, Buffalo, Rochester, Syracuse and Yonkers) were to receive 44 percent of the total funds appropriated for this adjustment in 1974-75.[22] The average payment was projected at $41 per designated pupil.[23]

Of the other states which had basic aid formula adjustments in 1971 responding to the cities' disproportionate numbers of low income pupils, New Jersey's and Washington's extra weightings for "disadvantaged" pupils have been tossed aside, while Pennsylvania, Missouri and Nebraska have retained their adjustments. New Jersey, as of a September 1975 school finance reform, repealed its 0.75 additional pupil weighting for AFDC students, which factor has figured prominently both in the calculation of Minimum Support Aid (entitlements based on the number of *weighted* pupils) and in the calculation of district wealth in the state's guaranteed valuation equalization aid program (equalized assessed valuation was computed on a per *weighted* pupil basis). However, by January, 1976 the Legislature had yet to provide funds for its new reform, and the New Jersey Supreme Court had yet to review and speak out on the reform's adequacy in light of *Robinson v. Cahill*, the state's counterpart to *Serrano* which goes the latter one up by requiring the state to honor its Constitutional commitment to provide a "thorough and efficient" education throughout the state. Therefore, it might be premature to count out New Jersey's AFDC weightings.

Washington State in 1975 dropped its 0.1 additional pupil unit weighting for students qualifying for a program for the "culturally disadvantaged." This weighting factor had grown to $4.663 million in its last year, 1974-75, while remaining funded at $39.40/pupil.[v] Pennsylvania's "poverty factor" adjustment[w] has been retained but with increased funding.[x] Missouri's and Nebraska's adjustments for low income or "disadvantaged" students remain as they were. New Mexico added a new dimension to pupil weighting schemes in 1974 by including a 0.5 additional pupil unit weighting for students enrolled in a state approved bilingual education program. No other states so far have chosen to follow New Mexico in this direction; they apparently prefer to fund state categorical programs for bilingual education. (See Table 3.)

(5) *Income Adjustments To District Wealth Definitions in Basic Aid Formulas*

Another problem area for cities has been their declining income in comparison to their suburbs', and sometimes in comparison to their states'. Prior to *Serrano*, only Rhode Island and Maryland had income adjustments built into the definition of district wealth in their general aid formulas. Kansas (1973), Virginia (1974) and Connecticut (1975) have since added income adjustments to bring the total to five states which recognize income differentials among districts. In all cases income measures are used in combination with property tax measures to deter-

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[t] Ohio's "Disadvantaged Pupil Impact Aid" adjustment:

Percent of ADC Pupils in District ADM(a)	Add'l Entitlement Per ADM(b)	Districts Which Qualify(c)
42.5% or more	$71.50	Cleveland & E. Cleveland only
38.5 - 42.4%	57.50	None
34.5 - 38.4%	52.50	None
30.5 - 34.4%	47.50	Cincinnati & Dayton only
26.5 - 30.4%	42.50	Columbus & Youngstown only
22.5 - 26.4%	32.50	Toledo, Akron, Portsmouth + 4 others
18.5 - 22.4%	22.50	Canton, Springfield, Lima + 4 others
15.0 - 18.4%	15.00	Hamilton, Warren + 16 others
10.0 - 14.9%(d)	7.50	44 others

(a) ADC is Aid to Dependent Children. ADM is Average Daily Membership.

(b) $24.9 million appropriated for 1975-76, compared to $19.3 million appropriated in 1974-75 for Ohio's old Municipal Overburden provision.

(c) Of the nine urban districts which used to receive payment under the Municipal Overburden provision, all will receive payment under this new provision. However, five of the nine districts will suffer actual losses from 3-39% under the new scheme (Canton 39%, Akron 11%, Columbus 11%, Toledo 11% and Cincinnati 3%), while Cleveland, Dayton, Youngstown and E. Cleveland will receive increases. (Cleveland 42% and Dayton 32%).

(d) Districts with less than 10% ADC, but with at least 600 ADC students, also qualify for the $7.50 additional entitlement.

[u] Michigan's "Chapter 3" (formerly "Section 3") program (enacted 1971), California's Miller-Unruh Basic Reading Act Bilingual Aides Program (AB 612, signed Aug., 1972) and Virginia's pilot comp. educ. program (enacted 1974). The New York adjustment may end up being administered as categorical funds rather than as general aid funds, according to recent reports from some local school administrators.

[v] The State in 1973-74 had changed the basis of counting eligible pupils from counting 1/4 of all AFDC pupils to counting all students eligible for the free reduced price lunch program, which increased fourfold the number of pupils eligible for the extra weighting.

[w] See section B(2).

[x] The poverty factor adjustment now raises all districts' basic aid entitlements by $165 for each low income pupil, then adds extra entitlements according to the following schedule:

Low Income Pupils As a % of ADM	Extra Entitlement Per Low Income Pupil	Number of Districts Which Qualify (74-75)
15 - 19.9%	$ 30	82
20 - 24.9%	60	40
25 - 29.9%	85	21
30 - 34.9%	135	18
35% and above	150	24
		182

TABLE 4

VIRGINIA, SELECTED LARGEST CITIES[1]: THEIR INCOME AND REAL ESTATE VALUATION COMPARED TO THE STATE'S

City	1973 Population	City to State Ratios Used in Calculating 1974-75 State Aid[2]: 1971 Personal Income Per ADM	True Value Real Estate Per ADM	1971 Personal Income Per Capita	True Value Real Estate Per Capita
Norfolk	283,064	123	88	97	70
Richmond	283,087	135	108	115	92
Newport News	137,827	108	74	107	74
Hampton	128,119	82	63	95	73
Portsmouth	102,295	83	59	87	62
Alexandria[3]	108,758	198	192	138	134
Roanoke	91,053	116	82	104	74
Lynchburg	54,873	115	92	106	84
State	4,908,000	100	100	100	100

[1]Data were unavailable for Virginia Beach (pop. 199,613) and Chesapeake (pop. 97,089).

[2]Both "Per ADM" (Average Daily Membership) and "Per Capita" are used in calculating district wealth, then basic state aid under Virginia's new school finance formula. 1971 Personal Income as defined by U.S. Department of Commerce.

[3]Washington, D.C. suburb.

Table Sources: Department of the Treasury, Office of Revenue Sharing, *General Revenue Sharing, Initial Data Elements, Entitlement Period 6* (Washington, D.C.:Department of the Treasury, April 18, 1975), pp. 401-404 and 437 (population data); Virginia State Department of Education data as provided by Prof. John Knapp, University of Virginia, Taylor-Murphy Institute, December 1975.

mine district wealth. Connecticut's new general aid formula defines wealth in terms of property valuation adjusted by median family income. Since Connecticut's major cities have lower income than the state, with the exception of the cities which are in effect affluent "New York City suburbs", the cities, therefore, stand to benefit from this income adjustment as the state's reform is gradually phased-in.[y]

Virginia's 1974 general aid reform utilizes personal income, summed with real property valuation and taxable retail sales, to define district "wealth." Kansas' 1973 general aid reform is similar. "Taxable income within the district," as reported on state income tax returns, is summed with the "adjusted valuation" of a district to produce "district wealth." Unlike Connecticut, however, Virginia and Kansas did not use income measures of wealth to help cities. While Norfolk, Hampton and Portsmouth, of Virginia's major cities, have personal income below the state average, all the major cities, these three included, are poorer in real property valuation than they are in personal income when compared to state averages. (See Table 4). None of Kansas' three major cities benefit under the income measure. (See Table 5). Unlike the earlier discussed state adjustments for cities' disproportionate number of low income and otherwise disadvantaged students, all of which pump disproportionate amounts of state aid into cities compared to suburban or rural districts, state adjustments for income can cut both ways: they can help as in Rhode Island, Maryland and Connecticut or they can hurt as in Kansas and Virginia.

[y]Connecticut's Largest Cities: Their Income Compared to the State's[24]

City	1973 Population	1969 Median Family Income	Med. Fam. Inc. City/State Ratio
Hartford	148,526	$ 9,109	.77
Bridgeport	148,337	9,849	.83
New Haven	131,262	9,031	.76
Waterbury	110,698	10,459	.89
Stamford	104,651	13,571	1.15
New Britain	79,799	10,759	.91
State	3,088,000	$11,811	1.00

(6) *Other Adjustments to District Wealth Definitions in Basic Aid Formulae*

As reported earlier, district wealth has been adjusted in other ways than by use of income measures. In 1970 New Jersey instituted a school finance equalization system which guaranteed valuation of $30,000 per weighted pupil, wherein AFDC students were counted as 0.75 additional pupil units, which had the effect of reducing apparent district wealth for cities and other districts with disproportionate numbers of AFDC students. New Jersey, however, has tentatively abandoned this approach. But Illinois in 1973 instituted a similar scheme. Equalized assessed valuation is calculated on a Title I weighted average daily attendance (TWADA) basis and TWADA, as earlier reported, includes 0.0 to 0.75 additional pupil units per ESEA Title I eligible child. This reduces Chicago from 117th in wealth in the state when property valuation is divided by average daily attendance to 299th when property valuation is divided by TWADA (1974-75).[25]

Connecticut also has chosen to adjust district wealth in a second way in addition to the income adjustment previously mentioned. The state has instituted measurement of property values on a per capita rather than a per pupil basis, the standard procedure across the country. Because of the smaller proportion of public school pupils compared to total population in four of Connecticut's six largest cities, these cities will benefit from this change when the new reform is fully funded; Hartford will not be affected, and New Britain will lose out. (See Table 6.) This adjustment works as follows. Using Bridgeport as an ex-

TABLE 5

KANSAS' LARGEST CITIES: THEIR INCOME AND WEALTH COMPARED TO THE STATE'S

City	Population 1973	Per Capita Income (PCI) 1972	PCI City to State Ratio	"Taxable Income" per pupil (TI) 1972-73[1]	TI City to State Ratio	"Adjusted Valuation" per pupil (AV) 1972-73[2]	AV City to State Ratio
Wichita	261,231	$3,906	1.06	$9,271	1.47	$14,866	.51
Kansas City	172,878	3,517	.96	7,843	1.24	13,601	.46
Topeka	136,059	3,920	1.06	10,925	1.73	14,603	.50
State	2,270,000	$3,681[3]	1.00	$ 6,313[4]	1.00	$29,374[4]	1.00

[1]"Taxable Income", within a district, as reported on state income tax returns, is the measure summed with "Adjusted Valuation" to derive "District Wealth" in Kansas new formula.

[2]"Adjusted Valuation" is the measure of urban and rural real estate, tangible personal property and state assessed property within a district.

[3]Weighted average.

[4]Unweighted average.

Table Sources: Department of the Treasury, Office of Revenue Sharing, *General Revenue Sharing, Initial Data Elements, Entitlement Period 6* (Washington, D.C.: Dept. of the Treasury, April 18, 1975), pp. 115-116, 437 (population and Per Capita Income data); National Conference of State Legislatures-Legislators' Education Action Project data from Kansas state agencies (Taxable Income and Adjusted Valuation data.)

TABLE 6

CONNECTICUT'S LARGEST CITIES: PROJECTED 1975-76 IMPACT OF THE STATE'S 1975 REFORM

City/State	Estimated Equalized Valuation per pupil[1] 1974	Equalized Valuation Per Capita 1974[2]	Equalized Valuation Per Capita 1974 Adjusted by Median Family Income 1969[3]	Current Expenditures per pupil[1] 1973-74	State Equalization Aid per pupil[1] 1975-76	Potential Equalization Aid per pupil if New Reform Fully Funded 1975-76
Hartford	$54,041	$18,475	$14,247	$1,110	$12.50	$ 755
Bridgeport	53,213	8,723	7,276	794	12.50	1,778
New Haven	51,264	12,951	9,902	944	12.50	1,232
Waterbury	41,404	10,347	9,163	927	12.50	1,580
Stamford[5]	100,662	23,512	27,015	1,163	-0-	-0-
New Britain	36,295	13,772	12,545	757	12.50	784
State (Median of Districts)	$46,400	$15,633	$15,633		$12.50[4]	$ 568

[1]"Per pupil" is Average Daily Membership (ADM).

[2]The state range is $6,315 to $66,354; assessed valuation is corrected for differences in assessment ratios and date of last revaluation.

[3]Equalized valuation per capita is raised or lowered by the ratio of the median family income in the district to the median family income in the state. The state's median family income is $11,811.

[4]Of 169 town districts, 140 will receive $12.50, 25 will receive $1.68 to $9.84.

[5]"New York City suburb"

Table Source: NCSL Legislators' Education Action Project, unpublished computer printout projection of 1975 Connecticut school finance reform.

ample, the city's Adjusted Assessed Valuation per pupil (Average Daily Membership) was $53,213 in 1974, 15% above the state median of $46,400. Using Adjusted Assessed Valuation *per capita*, Bridgeport's apparent wealth plummets to $8,723, amounting to only 55% of the state median, estimated at $15,633.

Virginia also utilizes the per capita approach. In Virginia's complex scheme, the complete district "wealth" measure (the sum of true value real property, personal income and taxable retail sales) is defined partially (1/3) on a per capita basis, and partially (2/3) on a per ADM basis. Of eight major cities five benefit from the per capita approach, two do not, and one is not affected. (See Table 4.)

(7) Municipal Overburden and Price of Education Adjustments

Two problems of urban school finance dealt with on only a very limited basis prior to *Serrano* were (1) municipal overburden, that is, the extra high tax burden cities

TABLE 7

FLORIDA, MAJOR URBAN DISTRICTS: IMPACT OF COST-OF-LIVING FACTOR AND PROPORTION OF SPECIAL AND VOCATIONAL EDUCATION STUDENTS IN ENROLLMENT

State/County	Florida Cost-of-Living Index 73-74	Basic State Operating Aid Per Pupil					Special Education and Vocational Education Students as a % of FTE Enrollment[2]
		Actual 72-73	Actual 73-74	Increase 72-73 to 73-74	Estimated if NO Cost-of-Living Index[2] 73-74	Increase 72-73 to 73-74	
Duval County (Jacksonville)	1.000	$516	$552	11.3%	$552	11.3%	11%
Hillsborough Co. (Tampa)	.964	515	573	7.0	594	15.3	10
Dade County (Miami)	1.090	408	474	16.2	434	6.4	7
Orange County (Orlando)	1.000	491	523	6.5	523	6.5	9
Broward County (Ft. Lauderdale)	1.063	380	475	25.0	447	17.6	10
State	1.000	$504[3]	$529[3]	5.0%	$529[3]	5.0%	9%

[1]Hypothetical calculations assuming (1) that both basic student aid and equalization aid were multiplied by the cost-of-living factor, although only the former (the larger part of basic aid by far) was, and (2) that the state aid "lost" by elimination of the cost-of-living factor is not redistributed at all to these urban districts which "lost" aid nor to any other districts in the state.

[2]FTE is Full Time Equivalent

[3]Unweighted average

Table Sources: State aid increase data from Florida agencies, collected and organized by National Conference of State Legislators-Legislatures' Education Action Project.

carry for noneducational public functions which more and more is coming into conflict with local education agencies' raising of local educational revenues; and (2) education price differentials between urban and rural districts, and, in some cases, between urban and suburban districts. Michigan alone has responded to the first problem and Florida to the second.

Michigan has increased funding substantially for a municipal overburden provision originally introduced in 1964 which channels significant extra funds to Detroit and some funds to several of the other cities.[z] When the total tax rate of a district less school operating taxes[aa] is 125 percent or more of the average rate statewide, the equalized assessed valuation of the district is reduced by the percentage by which the district's rate exceeds 125 percent of the state rate. The basic aid entitlement is then calculated using both this reduced valuation and the normal valuation, with the difference in basic aid entitlements partially made up by funds from the municipal overburden provision. The entire difference would be made up if the adjustment were fully funded, but it was only 28 percent funded in 1974-75. That year Detroit received approximately $93 per pupil under the provision, which accounted for most of its increase in general state aid from the year prior to Michigan's 1973 reform.[bb]

Florida in 1973 did not attempt to respond to price of education differentials directly; rather the state chose to utilize a cost-of-living index as a substitute. Cost-of-living factors, ranging from .91 to 1.09 were assigned to each school district based upon a market basket survey in the state. After the basic student cost to be supported by the state's state-local sharing system was set, and the number of weighted pupil units determined for each district, the products of these factors were multiplied by the cost-of-living factors. Urban areas in Florida benefit under this scheme. Despite relatively high wealth in Miami and Ft. Lauderdale, and the equalization aspects of Florida's 1973 reforms, the cities' high cost-of-living factors and the new elaborate pupil weighting scheme combined to increase state aid per pupil 16 percent for Miami and 25 percent for Ft. Lauderdale, compared to the 5 percent state average increase, 1972-73 to 1973-74. Table 7 estimates what the urbaan districts basic state aid might have been without the cost-of-living factor. The Table also indicates the relationship between high proportions of spe-

[z]In 1964-65, funding was $336,000. Funding increased gradually to $13,000,000 in 1969-70, then jumped to $27,000,000 in 1975-76. Detroit received $22 million of this $27 million.

[aa]Thus, local taxes levied for school construction and debt service are included, although taxes levied for school operating purposes are not. So the measure used is not truly a measure of noneducational tax overburden, although it comes close to being such.

[bb]This powerful effect is generally repeatable in other states. Grubb and Michelson found the ratio of non-school tax rate to total tax rate to be a function of population, population density, population growth and the preponderance of AFDC families.[29]

cial and vocational education students and increases in basic state aid 1972-73 to 1973-74. In 1974 the cost-of-living factors were renamed "cost differentials." In 1975 the value of the factors was readjusted; they now range from .903 to 1.065.[cc]

(8) Summary of the Changes Since *Serrano* in Adjustments for Urban School Finance Problems

Except for California, and to a lesser extent Washington and Wisconsin, state compensatory education programs in operation at the time of *Serrano* have been increased very little since that court decision. Except for Virginia, Utah and Texas there have been no new programs enacted and funded continuously. Colorado allowed its compensatory education program to expire and New York eliminated its program in favor of an adjustment to its general aid formula which benefits disadvantaged students. Excluding California, the other 11 states with funded programs in 1974-75 allocated state compensatory education funds amounting to only 23 percent of federal Title I ESEA allocations in their states. Fourteen additional "urban" states have no state compensatory education programs at all.

State bilingual education programs, which have undergone a tremendous expansion in number and in appropriated funds since *Serrano*, nevertheless, provide funds amounting only to 29 to 38 percent of the funds the Federal Government expends on bilingual education across the nation. Excluding Illinois and Massachusetts, the other 11 states' bilingual funds would amount only to 15-23 percent of the federal funds. And this against one informed observer's estimate that federal funds meet only 3 percent of need. Thus, it is suggested that these state categorical approahces to meeting urban school finance problems, while important in some states, are generally not of major significance in most states.

Urban adjustments to school finance basic aid formulae were many and varied before *Serrano*. They have increased in number, in complexity, in variety, and, insofar as can be determined, in funding commitments. Simple population density and school district size corrections have given way to increased use of pupil weighting schemes which count extra for low income or otherwise disadvantaged students and to increased use of fiscal capacity measures which favor urban areas. Municipal overburden has been addressed explicitly for the first time in one state. Cost-of-education differences, based on imputed overall price differentials between districts rather than on differences in district demand and capacity to pay for teachers with varying levels of experience and college training, have been explicitly addressed for the first time in one state. Table 8 summarizes the urban adjustments in state school finance systems at the end of 1975.

D. *Policy Problems of Urban Adjustments to State School Finance Systems*

What are the policy problems associated with the urban adjustments to state school finance basic aid formulae now being utilized?

Adjustments which are based on population density or school district size are simple and direct. The districts to receive funds are easily identified; they are usually few in number. The three states which gave up urban adjustments of this type did so, it appears, to broaden the distribution of special funds. Ohio increased distribution from 9 to 82 districts; Illinois increased from 26 districts to almost the whole state. Both Ohio and Illinois now base their adjustments solely on incidence of AFDC students. New York's 1969-70 district size correction, which included all districts for some distribution and a few districts for a second stage distribution, has been replaced by a distribution based on incidence of low achieving students; this adjustment places funds into most, if not all, districts in the state. The problems with population density and district size adjustments seem to be in their simplicity and directness: they do not ostensibly address any specific problem of urban school finance, as discussed at the beginning of this chapter, and they are too visible, while serving relatively few districts.

Increased attention has been given to basic aid formula adjustments which count extra pupil units for low income or otherwise disadvantaged pupils. Policy problems associated with these adjustments are numerous. First, how do you define eligible students? Pennsylvania uses a definition of "low income" similar to that the federal government uses in defining ESEA Title I eligible students; Illinois directly uses Title I eligibility as its definition; Minnesota, Ohio and Missouri utilize AFDC (Aid to Families with Dependent Children) status of students; Nebraska defines eligiblity as enrollment in a program for the "culturally deprived"; New York utilizes low scores on reading and math achievement tests. Pennsylvania's definition is partially dependent on U.S. Census Bureau data on low income families, thus suffers over time as the base statistics become more out-of-date. Illinois' direct use of Title I eligibility means that the state aid distribution under this adjustment changes significantly when the federal government changes its definition of Title I eligibility, which happened in 1974 and in Illinois shifted funds basically from urban to rural areas.[27] Use of AFDC status to define eligiblity results in having the aid labeled as "another welfare program" with all the stigma society currently attaches to this phrase; on the other hand, use of AFDC assures current data on which to base allocations. New York's use of achievement test scores, while focusing funds directly on educational disadvantagement, has the drawback of permitting school districts eventually to influence the distribution scheme through the way they administer the state tests upon which distribution has been based. A more serious problem with New York's approach concerns the distribution of funds to school districts which have significantly raised pupil achievement scores over time: do they now receive less or no extra funds because of their success, while districts not successful continue to receive extra funds?

Second, whether to base allocation of funds on simple

[cc] Miami (Dade County) now has a cost differential factor of 1.065, Ft. Lauderdale (Broward County) 1.058 and W. Palm Beach (Palm Beach County) 1.059. The other major urban areas have factors of 0.970 to 1.019, except Pensacola, at .942. Since the state has consolidated all local districts into 67 county units, this means that suburban schools in the same counties as the major cities also benefit from this cost-of-living provision.

incidence or concentration of eligible students is another policy issue. Several have argued that concentration is a fair way to recognize that the "educational climate" of districts with higher concentrations of disadvantaged students is quite different and far less supportive generally of the educational endeavor than that in districts, say, with less than 5-10% disadvantaged students, therefore, needing the input of substantial additional staff and other resources to be countered. Minnesota, Ohio, Pennsylvania and Illinois, whether buying this argument or not, provide greater state formula aid for higher concentrations of disadvantaged students. Nebraska, Missouri and New York, however, do not; their distribution of formula aid for disadvantaged students is solely on the basis of simple incidence; Pennsylvania and Illinois also distribute part of their formula aid for disadvantaged students on the basis of simple incidence.

Third, what should be the amount of extra funding or size of the additional pupil weighting per disadvantaged student? Extra funding ranges from $125/pupil (Missouri) up to $315/pupil (Pennsylvania's maximum payment). Additional pupil weightings range from next to zero (Illinois' lowest weighting) to 1.10 (Minnesota) and even to the equivalent of 1.44 (Nebraska's double weighting for high school students). While Ohio awards $7.50 to $71.50 extra per average daily membership (ADM), rather than an amount (or varying amount) per disadvantaged pupil, for qualifying districts, depending on their different con-

TABLE 8

SUMMARY OF URBAN ADJUSTMENTS IN STATE SCHOOL FINANCE SYSTEMS, 1975

			Basic Aid Formula Adjustments							
								District Wealth Definition		
States[1]	State Compensatory Educ. Program	State Bilingual Educ. Program	Disadvantaged Pupils	Concentration of Disadvantaged Pupils	Density or District Size	Non-educational Tax Overburden	Education Price Differences	Includes Income	Per AFDC Pupils	Per Capita
Arizona		X								
California	X	X								
Colorado		X			(X)[2]					
Connecticut	X							X		X
Florida							X			
Hawaii	X									
Illinois		X	X	X					X	
Kansas								(X)[3]		
Louisiana		X								
Maryland					X			X		
Massachusetts		X								
Michigan	X	X				X				
Minnesota				X						
Missouri			X							
Nebraska			X							
New Jersey		X	?						?	
New Mexico		X								
New York		X	X							
Ohio	X			X						
Oregon	X									
Pennsylvania	X		X	X	X					
Rhode Island	X	X						X		
Texas	X	X								
Utah	X									
Virginia	X							(X)[3]		X
Washington	X									
Wisconsin	X									
Totals	13	12	5-6	4	2	1	1	3	1-2	2

[1]Delaware, Indiana & Nevada, the remaining "urban states", have no urban adjustments whatsoever.
[2](X) Not operative in 1974-75.
[3](X) Does *not* benefit central city districts.

centration levels of AFDC. There are some decent estimates of the extra cost of compensatory education available through the efforts of the National Education Finance Project.[28] However, these estimates are based on "current practice" or sometimes "superior practice" prior to 1971. They do not tell, as education economist Henry Levin correctly notes, what amount of money is really needed to make a difference in educational outputs of economically disadvantaged children.[29]

Fourth, there are the problems of the targeting of the funds for disadvantaged students and the subsequent accountability for expenditure of these funds. Would a state be better off with a categorical program for compensatory education which specifies that funds are to be expended for extra educational services for the disadvantaged students rather than with a basic aid formula adjustment which provides extra general purpose funds for qualifying districts? The former approach must set in motion steps to assure accountability for proper expenditure of funds. This can tend to promote local compensatory programs identifiably separate from regular programs, with attendant consequences of compensatory and regular programs going separate ways and having limited reinforcement between them. The general purpose funds approach leaves all decision-making to local discretion, which often means that the funds are expended throughout districts with slight regard for providing extra services for disadvantaged students. While dealing with special and vocational education needs rather than with disadvantaged student needs, Florida's approach to targeting is noteworthy in the context of this discussion. By state law 80% of the extra funds generated by a schools' particular special student needs must be expended in that school. Thus, the state is assured that the extra funds are targeted on the schools in greatest need of extra help, while not being involved with decisions concerning whether extra services are bought for the special education and vocational students or whether the overall school program is improved. Of the seven states which provide extra funds for low income or otherwise disadvantaged students through basic aid formula adjustments, six do *not* require that the extra funds either be expended directly for special programs for the students generating the funds or for the schools of those students, while Nebraska does require the former. Of the thirteen states which are presently funding categorical compensatory education programs, most all make one or other of the above requirements; the same is true for the twelve states funding bilingual education programs. New York has chosen a middle ground between the extremes of complete local discretion or rigorous state targeting; the Empire State requires districts to plan and report on the use of the extra funds generated by its 0.25 additional weighting for educationally disadvantaged students.

Increased attention has also been given since *Serrano* to fiscal capacity measures which favor urban areas. An income adjustment to district wealth definition poses its own set of policy problems. First, and foremost, a state must decide if it wants an urban and rural adjustment or a fundamentally rural adjustment. An income adjustment can almost always help rural areas, but, as noted earlier, it can either help or hurt cities. Rhode Island, Maryland and Connecticut are using income adjustments to benefit their cities and their poor rural areas; Kansas and Virginia are only using income adjustments to benefit poor rural areas. The income data in a state must be examined before a commitment is made in the direction of an income adjustment.

Second, for an income adjustment, there is the question of what measure of income to use: median family income (Rhode Island and Connecticut), "net taxable income"[dd] (Maryland), "taxable income within the district"[dd] (Kansas), personal income (Virginia), or what? Do you compare district income to state income and use the ratio to adjust property valuation (Rhode Island, Connecticut and Virginia) or do you sum income with property valuation (Maryland and Kansas)? Do you divide income per student (Maryland, Kansas and Virginia), or per capita (Virginia)? And as an examination of Tables 4 and 5 shows, the type of income measure used could make a very large difference. If Virginia had chosen a per capita income measure exclusively, rather than also relying on a per student measure, and if Kansas had chosen a per capita income measure rather than "taxable income within the district," all but two of these states' major cities' income positions would appear less, therefore, qualifying these cities for more state basic aid under the two states' recent reforms. Third, data problems may exist, Rhode Island and Connecticut must use 1969 median family income figures, as they are all that are available from the U.S. Census Bureau. Virginia had to use 1971 personal income data from U.S. Department of Commerce studies in calculating its 1974-75 state aid distribution. If "taxable income" is to be used, a state obviously must have a state income tax, and be able to convert data from tax returns to a school district basis.

The policy problems connected with adjusting district wealth in other ways than by use of income measures are less troublesome. To consider defining district property wealth on a per capita basis, as Connecticut and Virginia have done, rather than on the standard per student basis, one must be aware that cities generally have smaller proportions of public school pupils compared to total population than other school districts. Thus cities generally stand to be favored by such an adjustment which would lower their district wealth relative to other districts. Nevertheless, if an *urban* adjustment is desired, the facts should be checked out within a state before a commitment is made to use a per capita basis for defining district wealth.

To consider defining district property wealth on a per student basis which includes counting AFDC or Title I eligible students, as New Jersey and Illinois, respectively, have done, one does not have to search out the facts as was suggested above for income and per capita adjustments to district wealth. Cities clearly have disproportionate numbers of such students. No data problems exist in using either of these above approaches in adjusting district wealth, since updated population data, AFDC counts and Title I eligible student counts are readily available from year to year.

To consider defining district property wealth on a per

[dd] From state income tax returns.

Average Daily Membership (ADM) basis rather than on a per Average Daily Attendance (ADA) basis poses little problem other than what might be involved in revising the system of obtaining enrollment data from local school districts. Presumably use of ADA encourages school districts to work harder to get truants into the classrooms. But it is debatable. Moreover, it certainly means that cities spend money on expanded staffs of attendance officers that might better be spent elsewhere in the systems.

Michigan's municipal overburden provision poses a difficult set of policy problems. First, should all public functions be compensated for by the state equally, or are some public functions necessities, and others simply choices? Second, should necessary functions satisfied by public expenditure in one jurisdiction be compensated for by the state while the same functions satisfied by private expenditure in another jurisdiction (e.g. refuse collection and disposal) are not? Third, while cities have generally higher public services than other jurisdictions, should the state compensate cities for this when, as some tax experts maintain, cities have a capacity to export significantly more of their taxes to outlying jurisdictions than the latter have to export their taxes to cities? City income taxes on commuters are striking examples of cities' capacity to export taxes. Fourth, will state compensation for high tax rates for noneducational public functions cause a shifting of expenditures (and taxes) for items previously considered primarily education related (e.g. school swimming pools and playfields) to the noneducational ledger in order to beef up the noneducational tax rate, and therefore, to receive some state compensation for items which would otherwise have had to be 100% locally funded? Fifth, and perhaps easiest, at what level should the threshold be set for qualification for special state compensation for high noneducational tax rates? In the case of Michigan, is 125% of the state average reasonable, too low or too high? Sixth, what should be the level of state compensation? Michigan ostensibly reduces a districts' wealth by the percentage noneducational tax overburden exceeds 125% of the state average, thereby increasing the amount of state aid due to the district. In reality, however, the state funds only 28% of the amounts due by such a calculation (1974-75). What is reasonable compensation?

Finally, Florida's cost-of-living factor raises another set of policy problems. First, as the former Director of the National Education Finance Project would ask: Does not a cost-of-living factor simply support high living rather than legitimate higher costs of education? Second, as many have asked: Does such a factor not support and encourage teacher union power rather than essential differences in costs of education? Third, many cities have higher proportions of teachers with seniority than either their surrounding suburbs or outlying rural areas, and high proportions of teachers with higher levels of education than rural areas.[30] Does a cost-of-living factor adequately address the higher costs central cities have to pay for these older and more educated teachers with their higher salaries and tenure rights which keep them from moving on to other school systems? Or would a state salary schedule be better compensation for this situation? Fourth, should the cost-of-living factor cover also differential costs for construction and renovation of school buildings? For site acquisition?

E. *The Impact on Urban School Districts of Serrano-Type Wealth-Neutralizing Reform*

Despite the urban adjustments of the post-*Serrano* period, the major school finance reform effort has been targeted on reform of wealth-related differences among local school districts. That, of course, is what *Serrano, Rodriguez* and their progeny were all about. What has happened to the funding of urban education in this context? Have wealth-poor urban districts benefited from *Serrano*-inspired reforms? Have needy urban districts with higher than average wealth suffered under these reforms because urban education's multifaceted needs have not been adequately recognized?

(1) The Overall Impact on Urban School Districts

Ten states have been analyzed to attempt to answer the above questions.[ee] Table 9 sets forth the statistics on basic state operating aid, other state operating aid, total state operating aid, local school revenues (or local school taxes), and changes that have occurred in these items from the year before the states implemented their reforms to selected years after the reforms. Data on school districts in 47 cities in 10 states were examined. Generally the largest cities in each state were selected, although in some cases data were not readily available on all the largest cities. Overall, of the 47 urban districts, half did well, having increases in *basic* state operating aid per pupil greater than their average state increase. That is, redistribution of basic state aid was in their favor. But half did not do well, as state average increases in basic state operating aid per pupil exceeded their increases.[ff] (See Table 9, columns 1-3). When considering *total* state aid per pupil, the lineup changes little. Only five districts changed positions for the better, and one for the worse. (See Table 9, columns 4-9).

Many of the states which have enacted school finance reforms since *Serrano* have attempted to reduce local property taxes at the same time they have been enacting new state aid distribution schemes. Some states have even had this as their principal objective. Of the 41 cities in nine states for which data are available, almost half reduced per pupil resources from local sources absolutely during the initial implementation of their new school finance legislation. What is more, over two-thirds of the 41 districts did better than the other districts in their states, either by decreasing local revenues per pupil more than the state average decrease, or if local revenues had increased in their states, by increasing local revenues less than the state average increase. (See Table 9, columns 10-12.)

(2) The Impact on Wealth-Poor Urban Districts

But specifically how have the wealth-poor city districts

[ee] California, Florida, Kansas, Michigan, Minnesota, Utah, Wisconsin, Colorado, New Mexico and New York.

[ff] Ann Arbor and Kalamazoo in Michigan, it should be noted, did not even have an increase: They lost basic state operating aid per pupil (1972-73 to 1973-74).

TABLE 9

URBAN SCHOOL DISTRICTS, FISCAL IMPACT OF RECENT STATE SCHOOL FINANCE REFORMS

State/City	Basic State Operating Aid Per Pupil 1973-74	Increase Per Pupil 72-73 to 73-74 Actual	Increase Per Pupil 72-73 to 73-74 Percent	Other State Operating Aid Per Pupil 1973-74	Increase Per Pupil 72-73 to 73-74 Actual	Increase Per Pupil 72-73 to 73-74 Percent	Total State Operating Aid Per Pupil 1973-74	Increase Per Pupil 72-73 to 73-74 Actual	Increase Per Pupil 72-73 to 73-74 Percent	Local School Revenues Per Pupil (or Local Rate(1973-74 Rate) 1973-74	Increase (Decrease) Per Pupil 72-73 to 73-74 Actual	Increase (Decrease) Per Pupil 72-73 to 73-74 Percent
California[1]	$336	$ 91	37%	$154	$ 67	77%	$490	$158	48%	$ 614	$ (41)	(6.3)%
Los Angeles	268	61	29	166	91	121	434	152	54	646	(163)	(20.1)
San Francisco	137	8	6	315	153	94	452	161	55	1,319	60	4.8
San Diego	254	23	10	132	61	86	386	84	28	612	93	17.9
San Jose	269	60	29	193	98	103	462	158	52	782	(9)	(1.1)
Sacramento	387	129	50	182	81	80	569	210	58	478	(42)	(8.1)
Fresno	444	146	49	165	83	101	609	229	60	418	(80)	(16.1)
Florida[2]#	$529	$ 25	5%							$243	$ (9)	(3.6)%
Dade County (Miami)	474	66	16							430	(36)	(7.7)
Broward County (Ft. Lauderdale)	475	95	25							297	(135)	(31.3)
Hillsborough Co. (Tampa)	573	36	7							263	(45)	(14.6)
Duval County (Jacksonville)	552	58	11							282	22	8.5
Orange County (Orlando)	523	32	7							305	54	21.5
Kansas[3]#	$291	$ 80	38%	$ 29 est.	$ 4 est.	14%	$320 est.	$ 84 est.	36%	33.4 mills	1.9 mills	6.0%
Wichita	418	196	88	38	13	51	456	209	85	43.6	(1.2)	(2.7)
Kansas City	384	206	118	27	8	39	411	213	108	42.9	(8.4)	(16.4)
Topeka	355	164	86	41	11	38	396	175	79	48.5	(1.9)	(3.8)
Michigan[4]#	$441	$ 43	11%	$ 93	$28	43%	$534	$ 71	15%	$ 554	$ 74	15.4%
Detroit	531	75	16	153	30	23	684	105	18	509	180	54.7
Grand Rapids	371	57	18	29	9	45	400	66	20	697	45	6.9
Lansing	441	38	9	91	24	32	532	62	13	737	57	8.4
Pontiac	261	2	1	100	33	49	361	35	11	776	45	6.2
Ann Arbor	69	(67)	(49)	197	47	31	266	(20)	(7)	1,285	157	13.9
Kalamazoo	240	(15)	(6)	113	20	22	353	5	1	1,098	32	3.0
Battle Creek	459	57	14	145	61	73	604	118	24	766	60	8.5
Minnesota[5]##	$506	$274*	117%	$ 87	$(16)*	(16)%	$593	$258*	77%	$ 187	$(114)*	(37.9)%
Minneapolis	340	209*	160	198	(6)*	(3)	538	203*	61	578	145*	33.5
St. Paul	386	255*	195	190	(12)*	(6)	576	243*	73	528	50*	10.5
Duluth	606	365*	151	67	(24)*	(26)	673	341*	102	232	(91)*	(28.2)
Utah[6]#	$485	$ 68	16%	$114	$ 20	21%	$599	$88	17%	$ 367	$ 36	10.9%
Salt Lake City	274	24	10	126	35	38	400	59	17	526	13	2.5
Ogden	468	75	19	119	31	35	587	106	22	278	27	10.8
Provo	457	55	14	111	25	29	568	80	16	256	(2)	(0.8)
Wisconsin[7]#	$452	$177	64%	$ 30	$ 1	3%	$482	$178	59%	$ 540	$ (27)	(4.8)%
Milwaukee	434	229	112	12	1	9	446	230	106	911	(55)	(5.7)
Madison	145	69	91	10	1	11	155	70	82	1,271	122	10.6
Green Bay	361	228	171	17	1	6	378	229	154	807	2	-0-
Colorado[8]	$546	$246**	82%							$ 579	$(12)**	(2.0)%
Denver	362	178**	99							1,015	104**	11.4
Colorado Springs	512	201**	65							558	17**	3.1
Boulder	540	276**	104							700	(71)**	(9.2)
Pueblo	602	240**	66							358	(18)**	(4.8)
Grand Junction	631	306**	94							389	(117)**	(23.1)
Ft. Collins	603	315**	109							617	(62)**	(9.1)
Greeley	588	262**	80							441	(100)**	(18.5)

#All state figures are unweighted averages.

##All state figures are medians.

*1970-71 data are used for comparison with 1972-73 data, since Minnesota's major reform was enacted in late 1971, and became effective first in 1971-72.

**1974-75 data are used for comparison vice 1973-74 data.

TABLE 9

URBAN SCHOOL DISTRICTS, FISCAL IMPACT OF RECENT STATE SCHOOL FINANCE REFORMS

State/City	Basic State Operating Aid Per Pupil 1974-75	Increase 73-74 to 74-75 Actual	Increase 73-74 to 74-75 Percent	Other State Operating Aid Per Pupil 1974-75	Increase (Decrease) 73-74 to 74-75 Actual	Increase (Decrease) 73-74 to 74-75 Percent	Total State Operating Aid Per Pupil 1974-75	Increase 73-74 to 74-75 Actual	Increase 73-74 to 74-75 Percent	Local School Revenues Per Pupil (or Local School Tax Rate) 1974-75	Increase (Decrease) 73-74 to 74-75 Actual	Increase (Decrease) 73-74 to 74-75 Percent
New Mexico[9#]	$766	$200	35%	$ 22	$(168)	(88)%	$788	$ 32	4%	$202	$126	166%
Albuquerque	689	237	52	11	(119)	(92)	700	118	20	108	68	170
Las Cruces	685	233	52	18	(118)	(87)	703	115	20	63	48	320
Gallup	487	22	5	110	46	72	597	68	13	69	40	138
Santa Fe	691	229	50	11	(143)	(93)	702	86	14	88	67	319
New York[10]	$651	$ 81	14%	$ 59	$ 14	31%	$710	$ 95	15%			
New York City	601	565	12	18	(18)	(50)	619	47	8			
Yonkers	416	30	8	19	2	(10)	435	28	7			
Syracuse	597	67	13	50	28	127	647	95	17			
Rochester	485	62	15	31	3	11	516	65	14			
Albany	448	33	8	37 est.	(16)est.	(30)	485 est.	17	4			
Buffalo	727	76	12	78	44	129	805	120	18			

#All state figures are unweighted averages.

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[1]**California.** "Basic State Operating Aid" is Basic Aid and Equalization Aid. "Total State Operating Aid" includes Supplemental Support Aid (1972-73 only), Property Relief Aid, Business Inventory Relief Aid, Other Tax Relief, Transportation, and all categorical programs, along with Basic Aid and Equalization Aid. "Other State Operating Aid" is "Total State Operating Aid" less "Basic State Operating Aid". "Local School Revenues" are total local revenues for current operations. Throughout the table, "Per Pupil" is Average Daily Attendance (ADA). Source: Dr. Mil Gipe, fiscal office, California State Department of Public Instruction, January 6, 1975.

[2]**Florida.** "Basic State Operating Aid", 1973-74, includes foundation aid disbursed under the state's new pupil weighting formula, adjusted by the new cost-of-living factor, plus equalization aid. Throughout the table "Per Pupil" is Average Daily Membership (ADM). Source: National Conference of State Legislatures-Legislators' Education Action Project data from various state agencies, (hereafter referred to as "NCSL-LEAP data").

[3]**Kansas.** "Other State Operating Aid" includes categorical aid for Driver Education, Vocational Education, Special Education and Transportation. "Local School Tax Rate" is the *total* local school tax rate. Source: NCSL-LEAP data.

[4]**Michigan.** "Basic State Operating Aid" is Maintenance and Operating Aid. "Other State Operating Aid" is Total State Aid less State Maintenance and Operating Aid. "Local School Revenues" are for current operating expenses. Throughout the table "Per Pupil" is the pupil count used for state aid purposes. Source: NCSL-LEAP data.

[5]**Minnesota.** "Basic State Operating Aid" is Foundation Program Aid; in 1970-71 this includes Apportionment and Income Tax School Aid per resident pupil unit; in 1973-74 this includes apportionment per resident pupil unit. "Total State Operating Aid" is the state portion of Adjusted Maintenance Cost, exclusive of transportation; in 1973-74, expenditures for veterans training, community services, receipts from sales of lunches, materials, student activities, and refunds from current expense are also excluded. "Other State Operating Aid" is "Total" less "Basic Aid". "Local Revenues" are the local portion of Adjusted Maintenance Cost with the same exclusions as above. Throughout the table "Per Pupil" is Average Daily Membership (ADM), conversions having been made from 1970-71 data based on Average Daily Attendance (ADA). Sources: State of Minnesota, Department of Education (State Aids, Statistics and Research), *Selected Data for Districts Maintaining Elementary and Secondary Schools, Year Ending June 30, 1971 and Aid for 1970-71 School Year* (St. Paul: February 1972); Ibid, *Year Ending June 30, 1974 and Aid for 1973-74 School Year* (St. Paul: February 1975).

[6]**Utah.** "Basic State Operating Aid" 1973-74, is state aid disbursed under the state's new pupil weighting formula. Throughout the table, "Per Pupil" is Average Daily Attendance (ADA). Source:NCSL-LEAP data.

[7]**Wisconsin.** Local School Revenues" are for current operating expenses. Throughout the table, "Per Pupil" is the pupil count used for state aid purposes. Source: NCSL-LEAP data.

[8]**Colorado.** "Basic State Operating Aid Per Pupil" is actual State Equalization Aid per Attendance Entitlement (AE). AE is determined as the larger of the two previous years' Average Daily Attendance Entitlements (ADAE). "Local School Revenues Per Pupil" are actual local General Fund Property Tax per AE, that is, it does not include local school revenues for Capital Reserve Fund nor Bond Redemption Fund. Sources: Paul Turpin, *The Impact of the Public School Finance Act, Second Year Analysis—1975 Budget Year* (Denver: Colorado Department of Education, March 1975), Addendums I& II, pp. 21-45; Colorado Department of Education, School Finance and Data Services and Office of Department Management Services, *The Impact of the Public School Finance Act of 1973* (Denver:CDE, February 1974), pp. 25-55.

[9]**New Mexico.** "Basic State Operating Aid", 1974-75, is equalization aid disbursed under the state's new pupil weighting formula. "Other State Operating Aid" includes all categorical aid except transportation aid. "Total State Operating Aid" is total aid less transportation aid. Throughout the table "Per Pupil" is Average Daily Membership (ADM). Source: NCSL-LEAP data.

[10]**New York.** Throughout the table "Per Pupil" is prior year Weighted Average Daily Attendance (WADA), which is the pupil count used for state aid purposes. "Other State Operating Aid Per Pupil, 1974-75" is BOCES aid (for Boards of Cooperative Educational Services) and new Special Services Type Aid (for the education of the severely handicapped and those in occupational education programs). Special Services Aid and BOCES aid are for similar purposes, but the former only goes to the "Big Five" cities (those listed in the table, except for Albany), while the latter is for all other districts than the "Big Five". "Other State Operating Aid Per Pupil, 1973-74" includes BOCES aid and Urban Education Program categorical compensatory education funds. The latter were eliminated after 1973-74. Transportation aid, building aid, incentive reorganization aid, lunch aid, textbook aid and other special categorical aid are excluded from both "Other State Operating Aid" and "Total State Aid Per Pupil"; all these exclusions account for only about 20% of Total State Aid and almost no changes were made in their allocation formulas from 1973-74 to 1974-75. All 1974-75 data are projections: 1973-74 data are actual. Sources: "Basic State Operating Aid Per Pupil" and Special Services Aid as a part of "Other State Operating Aid" from New York State Executive Department, Division of the Budget, *State of New York, Impact of 1974 Legislation on State Aid for Elementary and Secondary Schools*, Updated Computer Runs, May 29, 1974 (Albany). State Average "Basic State Operating Aid Per Pupil" from Task Force on State Aid for Elementary and Secondary Schools, *State of New York 1974 Legislation on State Aid for Elementary and Secondary Schools: A Summary* (Albany: June 1974), p. 17. Other data furnished by Ms. Lois Wilson, N.Y. State Executive Department, Division of the Budget and Mr. Dick Clarke, N.Y.State Department of Education, Dec. 1975 and Jan. 1976.

fared under the recent series of state school finance reforms? Table 10 lists the 22 urban districts of the 47 studied which are wealth-poor, (i.e., below state average wealth), their equalized valuation per pupil and their basic state operating aid increases per pupil. Of these 22 districts 16 received increases in basic state operating aid per pupil greater than their state average increases, while 6 did not. Thus, it appears that the *Serrano* and *Rodriguez*-inspired, wealth-neutralizing school finance reform movement has generally worked to the advantage of wealth-poor cities. California, Florida, Kansas, Michigan, Minnesota, and New Mexico, of the ten states analyzed here, are primarily responsible for this state of affairs. It should be noted, though, that of the 16 cities which fared well, half of these cities received *smaller* increases in basic state operating aid per pupil than their wealth disadvantage would seem to warrant. (Compare columns 2 and 4 in Table 10.) This was particularly true in New Mexico.

On the local revenue side, of the 41 cities analyzed in nine states, 20 are wealth-poor. Of these 20 urban districts, 60 percent actually decreased locally raised reve-

TABLE 10

SELECTED WEALTH-POOR URBAN DISTRICTS
BASIC STATE OPERATING AID INCREASES AND LOCAL SCHOOL REVENUE CHANGES
DUE TO RECENT STATE SCHOOL FINANCE REFORMS

State/City	Equalized Valuation Per Pupil 1973-74[1]	State to City Ratio	Basic State Operating Aid Per Pupil Increase 72-73 to 73-74[2]	City to State Ratio	Local School Revenues Per Pupil (or Local School Taxes) Increase (Decrease) 72-73 to 73-74[3]
California	$14,490	1.00	$ 91	1.00	$ (41)
Sacramento	12,326	1.18	129	1.42	(42)
Fresno	10,472	1.26	146	1.60	(80)
Florida	$43,289	1.00	$ 25	1.00	$ (9)
Hillsborough Co. (Tampa)	32,301	1.34	36	1.44	(45)
Duval County (Jacksonville)	33,179	1.30	58	2.32	22
Kansas	$33,322	1.00	$ 80	1.00	1.9 mills
Wichita	16,082	2.07	196	2.58	(1.2)
Kansas City	13,320	2.50	206	2.45	(8.4)
Topeka	14,767	2.26	164	2.05	(1.9)
Michigan	$24,461	1.00	$ 43	1.00	$ 74
Detroit	22,559	1.08	75	1.74	180
Minnesota	$12,344	1.00	$274[4]	1.00	$(114)
Duluth	9,842	1.25	364[4]	1.33	(91)
Utah	$ 9,549	1.00	$ 68	1.00	$ 36
Ogden	6,799	1.40	75	1.10	27
Provo	6,249	1.53	55	.81	(2)
Colorado	$18,216	1.00	$246[5]	1.00	$ (12)
Colorado Springs	13,782	1.32	201[5]	.82	17
Pueblo	13,035	1.40	240[5]	.98	(18)
Grand Junction	12,567	1.45	306[5]	1.24	(117)
Ft. Collins	16,432	1.11	315[5]	1.28	(62)
Greeley	12,570	1.45	262[5]	1.07	(100)
New Mexico	$18,067	1.00	$200[6]	1.00	$ 202
Albuquerque	9,528	1.90	237[6]	1.19	108
Las Cruces	7,017	2.57	233[6]	1.17	63
Gallup	6,326	2.86	22[6]	.11	69
Santa Fe	8,828	2.05	229[6]	1.15	86
New York	$42,980	1.00	$ 81[6]	1.00	n.a.
Syracuse	41,504	1.04	67[6]	.83	
Buffalo	31,487	1.37	76[6]	.94	

[1]From Table 11, column 1.
[2]From Table 9, column 2.
[3]From Table 9, column 1.
[4]Increase is from 70-71 to 73-74.
[5]Increase is from 72-73 to 74-75.
[6]Increase is from 73-74 to 74-75.

nues per pupil during the initial implementation of their new state school finance systems. Further, 75 percent did better than the other districts in their states, either by decreasing local revenues more than the state average decrease, or, if local revenues had increased, by increasing these revenues less than the state average increase. Thus, in terms of reducing local school revenue outlays for wealth-poor urban districts, or of making the raising of such revenues an easier task for these districts, it seems clear that the modern school finance reform movement has generally assisted urban education. California, Colorado, Kansas, New Mexico and Utah, of the nine states analyzed here, are the primary forces in this movement. (See Table 10, column 5.)

(3) The Impact on Urban Districts in Need More Comprehensively Defined Than Simply by Property Wealth.

Despite the success of the school finance reform movement in working to alleviate the fiscal problems of wealth-poor urban school districts, the recent state school finance reforms must be analyzed for their impact on the totality of urban districts' fiscal needs. Table 11 sets forth the basic dimensions of a suggested comprehensive definition of fiscal need for urban school districts. Equalized valuation per pupil, income per capita, local noneducational tax burden, percentage of disadvantaged students in enrollment, and a combined relative need ratio which ties these factors together, are examined.[gg] Education price differentials should be included in the relative need ratio, but data presently are unavailable. Table 12 then compares the relative need of urban districts to the state aid gains or losses per pupil that these districts have experienced under the recent school finance reforms of the ten states analyzed here.

Of the 47 districts overall, 15 needy districts did well under their state reforms; they had increases in *basic* state operating aid per pupil greater than the average increases in their states. Redistribution of basic state aid occurred in their favor. However, 16 needy and average need districts fared poorly, while 5 needy districts received only about the same as other districts in their states. Of the eight non-needy districts, four did well and four did not.[hh] (See Table 12, columns 1-3.) A look at total state operating aid increases per pupil shows that some corrections were made in the overall state school finance systems to improve the above record in basic aid, but the picture improves little.[ii] (See Table 12, columns 4-5.)

Kansas, Florida, Wisconsin and New Mexico did the best job in providing for their needy urban school districts. Colorado and New York did the worst job, as only one needy district out of eight in the two states combined fared well. Utah would be classified with Colorado and New York, based on the impact of basic operating aid changes alone, but the impact of changes in its state operating aid made up for some of the inadequacy of the state's new general aid formula. Utah, along with California, Michigan and Minnesota all are in the category of having treated their major city school districts unevenly in the provision of state operating aid based upon need.

Table 13 compares the relative financial need of urban districts to the increases or decreases in locally-raised revenues that these districts have experienced under the recent reforms in the nine states here analyzed. Of the 41 total districts, 20 needy districts did well under their state reforms. They either had larger decreases than their statewide decreases in locally-raised revenues per pupil, or, if locally-raised revenues per pupil were generally increased throughout their states, they had smaller increases. Nevertheless, 10 needy or average need districts fared poorly. Of the seven non-needy districts, three did well and four did poorly.[ii] (See Table 13.) Kansas, Michigan, Utah and New Mexico were most effective in reducing the local school revenue raising responsibilities of needy urban districts. On the other hand, Minnesota did the worst job. In California, Colorado, Florida and Wisconsin, the needy and average need school districts both gained ground and lost ground relative to the other districts in their states.

(4) Summary of The Modern School Finance Reform Movement's Impact on Urban School Districts

The modern school finance reform movement inspired by *Serrano* and *Rodriguez* appears not to have been unkind to urban school districts. These districts have had state aid redistributed in their favor as often as it has been shifted the other way. And two-thirds of them have benefited under the local property tax reduction focus of many reform states. Property wealth-poor city districts have done even better on both counts. However, when it comes to defining fiscal need in terms other than simply property-poor, and attempting to meet those more comprehensively defined needs, the record of the states in reform is not as good. On one hand, changes in locally provided school revenues have had about the same impact on needy urban districts as on all urban districts. Two-thirds came out better than the other districts in their states in reducing local revenue or in limiting increases. On the other hand, only 44 percent of the needy urban districts in ten states benefited from redistribution of basic state operating aid. Changes in other state aid improved this record, but only slightly.

III. Rural School Finance Adjustments

While urban adjustments are a relatively new component of state school finance legislation, rural adjust-

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[gg] The four factors are weighted equally, recognizing the arbitrariness in such weightings. The authors invite comment on the whole notion of such a need index. The initial idea for the development of the relative need index came from John J. Callahan, William Wilken and M. Tracy Sillerman in *Urban Schools and School Finance Reform: Promise and Reality* (Washington, DC: The National Urban Coalition, 1973).

[hh] The remaining three districts were average-need districts which did well.

[ii] Seventeen (17, up from 15) needy districts received increases in *total* state operating aid per pupil greater than their state average increases, while 11 (down from 16) needy and average need districts did poorly, and 8 (up from 5) needy districts received only about the same as other districts in their states.

[ii] The remaining four districts were three average need districts which did well, and one needy district which fared average.

TABLE 11

URBAN SCHOOL DISTRICTS' FISCAL CHARACTERISTICS AND RELATIVE NEED, SELECTED CITIES

State/City	Equalized Valuation Per Pupil 1973-74[1]	State to City Ratio[1]	Income Per Capita 1972[2]	State to City Ratio[2]	Local Noneducational Tax Burden FY 1974 est.[3]	City to State Average Ratio[3]	Percentage of Disadvantaged Pupils in Enrollment 1973-74[4]	City to State Ratio[4]	Combined Relative Need Ratio[5]
California[6]	$14,490*	1.00	$4,264	1.00	2.70%##	1.00	11%	1.00	1.00
Los Angeles	15,289*	.95	4,545	.94	3.59	1.33	25	2.36	2.80
San Francisco	38,550*	.38	5,029	.85	6.90	2.56	32	2.91	2.41
San Diego	15,157*	.96	4,215	1.01	2.11	.78	24	2.18	1.65
San Jose	14,837*	.98	4,026	1.06	2.41	.89	9	.82	.76
Sacramento	12,326*	1.18	4,076	1.05	2.94	1.09	22	2.00	2.70
Fresno	10,472*	1.38	3,494	1.22	3.58	1.33	21	1.91	4.28
Florida[7]	$43,289#	1.00	$3,885	1.00	1.28%##	1.00	7%	1.00	1.00
Dade County (Miami)	62,938	.69	4,366	.89	2.02	1.57	7	1.00	.96
Broward County (Ft. Lauderdale)	67,112	.65	4,795	.81	.60	.47	4	.57	.14
Hillsborough Co. (Tampa)	32,301	1.34	3,604	1.08	1.42	1.11	6	.86	1.38
Duval County (Jacksonville)	33,179	1.30	3,686**	1.05	N.A.		10	1.43	1.95
Orange County (Orlando)	48,502	.89	3,837	1.01	1.33	1.04	4	.57	.53
Kansas[8]	$33,322#	1.00	$3,681	1.00	1.83%##	1.00	6%	1.00	1.00
Wichita	16,082	2.07	3,906	.94	2.28	1.25	9	1.50	3.65
Kansas City	13,320	2.50	3,517	1.05	3.10	1.69	7	1.17	5.19
Topeka	14,767	2.26	3,920	.94	2.12	1.16	8	1.33	3.28
Michigan[9]	$24,461#	1.00	$3,984	1.00	2.38%##	1.00	15%	1.00	1.00
Detroit	22,559	1.08	3,817	1.04	5.74	2.41	39	2.60	7.04
Grand Rapids	25,717	.95	3,603	1.11	2.69	1.13	29	1.93	2.30
Lansing	24,567	1.00	3,981	1.00	2.91	1.22	22	1.47	1.79
Pontiac	31,864	.77	3,343	1.19	5.65	2.37	28	1.87	4.06
Ann Arbor	38,567	.63	4,615	.86	2.21	.93	9	.60	.30
Kalamazoo	33,636	.73	3,745	1.06	2.56	1.08	19	1.27	1.06
Battle Creek	24,818	.99	3,537	1.13	3.85	1.62	31	2.07	3.75
Minnesota[10]	$12,344	1.00	$3,666	1.00	1.38%##	1.00	9%	1.00	1.00
Minneapolis	22,155	.56	4,202	.87	3.24	2.35	31	3.44	3.94
St. Paul	18,891	.65	4,062	.90	2.78	2.01	23	2.56	3.01
Duluth	9,842	1.25	3,692	.99	2.14	1.55	11	1.22	2.34
Utah[11]	$ 9,549#	1.00	$3,341	1.00	1.26%##	1.00	9%	1.00	1.00
Salt Lake City	13,011	.73	4,109	.81	2.63	2.09	18	2.00	2.47
Ogden	6,799	1.40	3,749	.89	1.71	1.36	18	2.00	3.39
Provo	6,249	1.53	2,675	1.25	1.68	1.33	9	1.00	2.54
Wisconsin[12]	$42,400#	1.00	$3,669	1.00	1.76%##	1.00	10%	1.00	1.00
Milwaukee	44,000	.96	3,809	.96	2.65	1.51	25	2.50	3.48
Madison	63,731	.67	3,938	.93	2.41	1.37	9	.90	.77
Green Bay	47,358	.90	3,533	1.04	2.41	1.37	8	.80	1.03

*Actual assessed valuation, rather than equalized valuation.

**Jacksonville City only.

#Unweighted average.

##Unweighted average of largest cities in state. See Note (3) for details.

TABLE 11 (Continued)

State/City	Equalized Valuation Per Pupil 1974-75[1]	State to City Ratio[1]	Income Per Capita 1972[2]	State to City Ratio[2]	Local Noneducational Tax Burden FY 1974 est.[3]	City to State Average Ratio[3]	Percentage of Disadvantaged Pupils in Enrollment 1973-74[4]	City to State Ratio[4]	Combined Relative Need Ratio[5]
Colorado[13]	$18,216***	1.00	$4,006	1.00	2.33%##	1.00	8%	1.00	1.00
Denver	[illegible],290	.72	4,560	.88	4.78	2.05	10	1.25	1.62
Colorado Springs	13,782	1.32	3,750	1.07	2.59	1.11	5	.63	.99
Boulder	24,416	.75	4,167	.96	2.57	1.10	1	.13	.10
Pueblo	13,035	1.40	3,474	1.15	2.71	1.16	19	2.38	4.44
Grand Junction	12,567	1.45	3,748	1.07	2.43	1.04	5	.63	1.02
Ft. Collins	16,432	1.11	3,534	1.13	1.92	.82	5	.63	.65
Greeley	12,570	1.45	3,662	1.09	1.80	.77	16	2.00	2.43
New Mexico[14]	$18,067#	1.00	$2,992	1.00	.75%##	1.00	7%	1.00	1.00
Albuquerque	9,528	1.90	3,835	.78	1.75	2.33	3	.43	1.48
Las Cruces	7,017	2.57	3,117	.96	1.19	1.59	6	.86	3.37
Gallup	6,326	2.86	3,877	.77	1.06	1.41	12	1.71	5.31
Santa Fe	8,828	2.05	3,433	.87	.93	1.24	5	.71	1.57
New York[15]	$42,980	1.00	$4,248	1.00	4.18%##	1.00	16%	1.00	1.00
New York City	61,798	.70	4,309	.99	9.51	2.28	39	2.44	3.86
Yonkers	62,232	.69	4,983	.85	3.07	.73	20	1.25	.54
Syracuse	41,504	1.04	3,717	1.14	3.44	.82	24	1.50	1.46
Rochester	49,920	.86	3,716	1.14	4.90	1.17	37	2.31	2.65
Albany	78,329	.55	4,199	1.01	4.83	1.16	37	2.31	1.49
Buffalo	31,487	1.37	3,409	1.25	5.19	1.24	30	1.88	3.99

#Unweighted average.
##Unweighted average of largest cities in state. See Note (3) for details.
***Estimated median of districts.

[1]**Equalized Valuation Per Pupil** are data from National Conference of State Legislatures-Legislators' Education Action Project (NCSL-LEAP), published and unpublished data from various state agencies, except as noted below. A "State to City Ratio" is utilized so that higher wealth indicates a lower need ratio (i.e., below 1.00).

[2]**Income Per Capita, 1972** are data for city governments rather than for school districts (except for Florida, which data are for county governments because school districts are county-wide), from Department of the Treasury, Office of Revenue Sharing, *General Revenue Sharing, Initial Data Elements, Entitlement Period 6* (Washington, D.C.: Department of the Treasury, April 18, 1975) A "State to City Ratio" is utilized so that higher income indicates a lower need ratio (i.e., below 1.00).

[3]**Local Noneducational Tax Burden** are data for city governments rather than for school districts (except for Florida, which data are for county governments because school districts are county-wide), from Department of the Treasury, ibid. FY 1974 Adjusted Taxes divided by 1973 Population, divided further by Income Per Capita, 1972. No state figures are available; thus, city averages for each state are used instead. See below for details for each state. A "City to City Average Ratio" is utilized so that higher noneducational tax burden indicates a higher need ratio (i.e., above 1.00).

[4]**Percentage of Disadvantaged Pupils in Enrollment** are data from various state agencies, usually either Federal Elementary and Secondary Education Act (ESEA) Title I eligible students, or number of students served by the Federal ESEA Title I program. See below for details for each state. Data on ESEA Title I eligible pupils provided by U.S. Office of Education or by state departments of education; data on number of students served by ESEA Title I and general enrollment provided by state departments of education. A "City to State Ratio" is utilized so that higher proportions of disadvantaged students in enrollment indicates a higher need ratio (i.e. above 1.00).

[5]**Combined Relative Need Ratio** is obtained by multiplying the four factors together for each state or school district. This means that each factor is weighted equally. Thus, a threefold equalized valuation advantage (i.e., a "non-need" ratio of 0.33) will compensate exactly for a threefold noneducational tax burden disadvantage (i.e., a "need" ratio of 3.00) : 0.33 x 3.00 = 1.00.

[6]**California.** " . . . Valuation Per Pupil" is actual, non-equalized, Assessed Valuation per Average Daily Attendance (ADA); source: Dr. Mel Gipe, finance office, California State Department of Public Instruction, Sacramento. "Local Noneducational Tax Burden" City Average determined by averaging burden for all 20 cities over 100,000 population (1973). "Disadvantaged Pupils" are AFDC students.

[7]**Florida.** "Equalized Valuation Per Pupil" is equalized valuation per Average Daily Membership (ADM). "Local Noneducational Tax Burden" City Average is actually a county average determined by averaging burden for county governments only in all 18 counties over 100,000 population (1973). "Disadvantaged Pupils" are the number of pupils served by the Federal ESEA Title I Program.

[8]**Kansas.** "Equalized Valuation Per Pupil" is Adjusted (equalized) Valuation per pupil, which is the measure of urban and rural real estate, tangible personal property and state assessed property within a school district which Kansas uses partially to define district wealth in its new basic education aid formula; the pupil unit is the same as that used for state aid purposes. "Local Non-educational Tax Burden" City Average is determined by averaging burden for all 19 cities over 15,000 population (1973). "Disadvantaged Pupils" are the number of participants in the Federal ESEA Title I program.

[9]**Michigan.** "Equalized Valuation Per Pupil" is State Equalized Valuation per pupil, which is the measure Michigan uses to define district wealth in its new basic education aid formula; the pupil unit is the same as that used for state aid purposes. "Local Noneducational Tax Burden" City Average is

determined by averaging burden for all 22 cities and villages over 50,000 population (1973). "Disadvantaged Pupils" are the number of pupils eligible in Michigan for the Federal ESEA Title I program.

[10] **Minnesota.** "Equalized Valuation Per Pupil" is 1973 adjusted assessed valuation as equalized by the Equalization Aid Review Committee divided by the number of resident pupil units; source: Special Report, *Update* (St. Paul: Minnesota, State Department of Education, Vol. 9, Special Edition No. 3, Spring, 1975). "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 16 cities and villages over 30,000 population (1973). "Disadvantaged Pupils" are

[11] **Utah.** "Equalized Valuation Per Pupil" is Uniformly Assessed Valuation per Average Daily Attendance (ADA). "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 15 cities over 15,000 population (1973). "Disadvantaged Pupils" are the number of pupils eligible in Utah for the Federal ESEA Title I program.

[12] **Wisconsin.** "Equalized Valuation Per Pupil" is the measure Wisconsin uses to define district wealth in its new basic education aid formula; the pupil unit is the same as that used for state aid purposes. "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 21 cities and villages over 30,000 population (1973). "Disadvantaged Pupils" are the number of pupils eligible in Wisconsin for the Federal ESEA Title I program, considering low income, AFDC, delinquent and neglected students, with a decided emphasis on the former two categories.

[13] **Colorado.** "Equalized Valuation Per Pupil" is actual, assessed valuation, adjusted by assessment-sales ratios, per Average Daily Attendance Entitlement (ADAE), for Budget Year 1974; Source: Education Finance Center, Education Commission of the States, Denver, Colorado. "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 19 cities over 15,000 population (1973). "Disadvantaged Pupils" are the number of pupils served by the Federal ESEA Title I program.

[14] **New Mexico.** "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 11 cities and towns over 15,000 population (1973). "Disadvantaged Pupils" are the number of participants in the Federal ESEA Title I program.

[15] **New York.** "Equalized Valuation Per Pupil" is Full Valuation per Resident Weighted Average Daily Attendance (RWADA), which is the measure used to define district wealth in New York's new basic education formula; source: Mr. Dick Clarke, education finance research section, New York State Department of Education, Albany. "Local Noneducational Tax Burden" City Average is determined by averaging burden for all 14 cities over 50,000 population (1973). "Disadvantaged Pupils" are ADC pupils (1973).

TABLE 12

URBAN SCHOOL DISTRICTS, RELATIVE FINANCIAL NEED COMPARED TO RECENT CHANGES IN STATE AID FOR EDUCATION

State/City	Combined Relative Financial Need Ratio[1]	Basic State Operating Aid Per Pupil Increase (Decrease) 72-73 to 73-74[2]	City to State Ratio	Total State Operating Aid Per Pupil Increase (Decrease) 72-73 to 73-74[3]	City to State Ratio
California	1.00	$ 91	1.00	$158	1.00
Fresno	4.28	146	1.60	229	1.45
Los Angeles	2.80	61	.67	152	.96
Sacramento	2.70	129	1.42	210	1.33
San Francisco	2.4	8	.09	161	1.02
San Diego	1.65	23	.25	84	.53
San Jose	.76	60	.66	158	1.00
Florida	1.00	$ 25#	1.00		
Duval County (Jacksonville)	1.95	58	2.32		
Hillsborough Co. (Tampa)	1.38	36	1.44		
Dade County (Miami)	.96	66	2.64		
Orange County (Orlando)	.53	32	1.28		
Broward County (Ft. Lauderdale)	.14	95	3.80		
Kansas	1.00	$ 80#	1.00		
Kansas City	5.19	206	2.58	Data show negligible differences from basic aid comparison.	
Wichita	3.65	196	2.45		
Topeka	3.28	164	2.05		

TABLE 12 (Continued)

State/City	Combined Relative Financial Need Ratio[1]	Basic State Operating Aid Per Pupil Increase (Decrease) 72-73 to 73-74[2]	City to State Ratio	Total State Operating Aid Per Pupil Increase (Decrease) 72-73 to 73-74[3]	City to State Ratio
Michigan	1.00	$ 43#	1.00	$ 71#	1.00
Detroit	7.04	75	1.74	105	1.48
Pontiac	4.06	2	.05	35	.49
Battle Creek	3.75	57	1.33	118	1.66
Grand Rapids	2.30	57	1.33	66	.93
Lansing	1.79	38	.88	62	.87
Kalamazoo	1.06	(15)	(.35)	5	.07
Ann Arbor	.30	(67)	(1.56)	(20)	(.28)
Minnesota[4]	1.00	$274[4]##	1.00		
Minneapolis	3.94	209[4]	.76	Data show negligible	
St. Paul	3.01	255[4]	.93	differences from basic	
Duluth	2.34	365[4]	1.33	aid comparison	
Utah	1.00	$ 68#	1.00	$ 88#	1.00
Ogden	3.39	75	1.10	106	1.20
Provo	2.54	55	.81	80	.91
Salt Lake City	2.47	24	.35	59	.67
Wisconsin	1.00	$177#	1.00		
Milwaukee	3.48	229	1.29	Data show negligible	
Green Bay	1.03	228	1.29	differences from basic	
Madison	.77	69	.39	aid comparison.	
Colorado	1.00	$246[5]	1.00		
Pueblo	4.44	240[5]	.98		
Greeley	2.43	262[5]	1.07		
Denver	1.62	178[5]	.72		
Grand Junction	1.02	306[5]	1.24		
Colorado Springs	.99	201[5]	.82		
Ft. Collins	.65	315[5]	1.28		
Boulder	.10	276[5]	1.12		
New Mexico	1.00	$200[6]	1.00	$ 32#	1.00
Gallup	5.31	22[6]	.11	68	2.13
Las Cruces	3.37	233[6]	1.17	115	3.59
Santa Fe	1.57	229[6]	1.15	86	2.69
Albuquerque	1.48	237[6]	1.19	118	3.69
New York	1.00	$ 81[6]	1.00	$ 95	1.00
Buffalo	3.99	76[6]	.94	120	1.26
New York City	3.86	65[6]	.80	47	.49
Rochester	2.65	62[6]	.77	65	.68
Albany	1.49	33[6]	.41	17	.18
Syracuse	1.46	67[6]	.83	95	1.00
Yonkers	.54	30[6]	.37	28	.29

#Unweighted average.
##Median.
[1]From Table 11, last column.
[2]From Table 9, column 2.
[3]From Table 9, column 8.
[4]For Minnesota 1970-71 is compared to 1973-74, since the state's major reform was enacted in 1971.
[5]For Colorado 1972-73 is compared to 1974-75.
[6]For New Mexico and New York 1973-74 is compared to 1974-75, since these two states' reforms were enacted in 1974.

TABLE 13

URBAN SCHOOL DISTRICTS, RELATIVE FINANCIAL NEED COMPARED TO CHANGES IN LOCAL SCHOOL REVENUES (OR TAXES)

State/City	Combined Relative Financial Need Ratio[1]	Local School Revenues Per Pupil (or Local School Taxes) Increase (Decrease) 72-73 to 73-74[2]	City to State Ratio
California	1.00	$(41)	(1.00)
Fresno	4.28	(80)	(1.95)
Los Angeles	2.80	(163)	(3.98)
Sacramento	2.70	(42)	(1.02)
San Francisco	2.41	60	1.46
San Diego	1.65	93	2.27
San Jose	.76	(9)	(.22)
Florida	1.00	$ (9)#	(1.00)
Duval County (Jacksonville)	1.95	22	2.44
Hillsborough Co. (Tampa)	1.38	(45)	(5.00)
Dade County (Miami)	.96	(36)	(4.00)
Orange County (Orlando)	.53	54	6.00
Broward County (Ft. Lauderdale)	.14	(135)	(15.00)
Kansas	1.00	1.9 mills	1.00
Kansas City	5.19	(8.4)	(4.42)
Wichita	3.65	(1.2)	(.63)
Topeka	3.28	(1.9)	(1.00)
Michigan	1.00	$ 74#	1.00
Detroit	7.04	180	2.43
Pontiac	4.06	45	.61
Battle Creek	3.75	60	.81
Grand Rapids	2.30	45	.61
Lansing	1.79	57	.77
Kalamazoo	1.06	32	.43
Ann Arbor	.30	157	2.12
Minnesota	1.00	$114[3]##	(1.00)
Minneapolis	3.94	145[3]	1.27
St. Paul	3.01	50[3]	.44
Duluth	2.34	(91)[3]	(.80)
Utah	1.00	$ 36#	(1.00)
Ogden	3.39	27	.75
Provo	2.54	(2)	(.06)
Salt Lake City	2.47	13	.36
Wisconsin	1.00	$ (27)#	(1.00)
Milwaukee	3.48	(55)	(2.04)
Green Bay	1.03	2	.07
Madison	.77	122	4.52
Colorado	1.00	$ (12)[4]	(1.00)
Pueblo	4.44	(18)[4]	(1.50)
Greeley	2.43	(100)[4]	(8.33)
Denver	1.62	104[4]	8.66
Grand Junction	1.02	(117)[4]	(9.75)
Colorado Springs	.99	17[4]	1.42
Ft. Collins	.65	(62)[4]	(5.17)
Boulder	.10	(71)[4]	(5.92)
New Mexico	1.00	$ 126[5]#	1.00
Gallup	5.31	40[5]	.32
Las Cruces	3.37	48[5]	.38
Santa Fe	1.57	67[5]	.53
Albuquerque	1.48	68[5]	.54

#Unweighted average.
##Median
[1]From Table 11, last column.
[2]From Table 9, column 11.
[3]For Minnesota 1970-71 is compared to 1973-74, since Minnesota's major reform was enacted in 1971.
[4]For Colorado 1972-73 is compared to 1974-75.
[5]For New Mexico 1973-74 is compared to 1974-75, since the state's major reform was enacted in 1974.

ments have been in effect since the earliest state school aid legislation, school aid having been developed originally to provide children in rural areas some of the same educational opportunities enjoyed by their more fortunate city cousins. Reflecting this history, adjustments for rural areas in state school finance legislation are much more numerous than adjustments for urban areas. At Table 14 shows, for example, even many of the post-*Serrano* reform states have no explicit urban adjustment but have one or more specific rural adjustments.

Rural adjustments take several forms, but sparsity corrections are the most common. These adjustments are established in the belief that rural communities must have a higher level of expenditure to provide even basic education for their students (See Table 15). Without these adjustments, these areas would not receive sufficient aid to maintain such expenditure levels. A rural community, then, would have to either raise taxes or lower its expenditures, or even run the risk of having to close its public school system operations.

The sparsity corrections employed in the states studied here take several different forms. Utah and New Mexico permit rural school districts to count additional pupil units to raise their overall state aid entitlement for children in rural schools. Kansas and Colorado provide greater tax yield guarantees to smaller, essentially rural school districts, Kansas does this through a three tier classification of school districts and a resultant system of budget guar-

TABLE 14

GEOGRAPHIC AREA ADJUSTMENTS IN SCHOOL AID LEGISLATION OF 14 SCHOOL FINANCE REFORM STATES, FY 1975

State	Type of Adjustment		
	Rural	Urban	Other
Arizona	None	None	None
California	Yes, $940-$4189 Foundation for necessary small schools	None[1]	None
Colorado	1.04-2.00 Enrollment weights for students in small attendance areas	Yes; Denver's DPE rate increased by 15% for 1974	No
Florida	No 18% more aid for urban areas	Yes, Cost-of-living index provides up to 18% more aid for urban areas.	No
Illinois	No	Yes, Title I students can be weighted to 1.75[2] for aid count.	No
Kansas	Yes, higher DPE guarantees for districts with enrollments less than 1200.	No	No
Maine	Yes, districts may receive geographic isolation grants.	No	Yes[3]
Michigan	No	Yes, Municipal overburden factor which can reduce district's valuation for aid purposes.	No
Minnesota	Yes, agricultural property differential payment to all districts to reduce basic levy.	Yes, AFDC pupils weighted from 0.5 to 1.1 additional for aid purposes.	Yes, additional pupil units for districts with growth above 2% per year.
Montana	No	No	No
New Mexico	Yes, additional pupil counts for elementary and secondary schools below 200 ADM and districts less than 4,000 ADM.	No	No
North Dakota	$648-$918 (high school) $475-$712 (elementary) Foundation grants for small districts.	No[4]	No
Utah	$508-2743 WPV guarantee $508-1016 for small elementary, $508-1016 for junior & senior high schools.	No[1]	No
Wisconsin	No	No[1]	No

[1]Compensatory program aimed at urban areas is authorized under a categorical program.
[2]Urban density weights provided in previous law.
[3]Additional aid can be paid to districts with enrollment increases of 3% of more.
[4]$15 mill property reduction required in all districts over 4,000 population and selected other districts.

TABLE 15

COMPARISON OF SOME CHARACTERISTICS OF WISCONSIN SCHOOL DISTRICTS GROUPED ACCORDING TO HIGH SCHOOL (9-12) ENROLLMENTS

1972-73 School Year

High School (9-12) Enrollments	1971-72 High School Course Offerings Gen.	Voc.	Total	Total Oper. Costs Per K-12 Pupil ADM	High School (9-12) Pupil/Staff Ratios	Valuation Per Res. Pupil ADM	Average Total School Tax Rate	Average Teaching Staff*	Courses Per Staff Member*
Under 100	19	11	30	$1,291	10.3:1	$59,518	17.22M	10	3.0
100 to 199	26	17	43	986	13.2:1	34,006	17.15	11	3.9
200 to 299	28	19	47	924	14.6:1	32,340	19.45	17	2.7
300 to 399	31	22	53	899	15.6:1	30,028	19.96	22	2.4
400 to 499	34	23	57	889	16.8:1	32,746	19.34	27	2.1
500 to 749	38	26	64	897	17.7:1	35,426	19.13	35	1.8
750 to 999	44	29	73	929	16.7:1	36,355	20.88	52	1.4
1,000 to 1,499	47	30	77	936	17.8:1	36,657	20.61	70	1.1
1,500 and Over	64	37	101	966	18.1:1	42,902	19.97	110	.9
State Average	36	24	60	$ 946	17.1:1	$38,605	20.10M	N.C.	N.C.

*Computed on mid-point of enrollment in all cases except the Under 100 category (computed on 100) and the Over 1,500 category (computed on basis of 2000 students)

Source: *Planning for Better Education in Wisconsin*, Wisconsin Department of Public Instruction, 1974.

TABLE 16

SCHOOL DISTRICT ORGANIZATION CHARACTERISTICS 14 REFORM STATES, 1972

State	# Of School Systems	Average Enrollment Size	% School Systems Under 300 Pupils	% Systems Unified
Arizona	241	1,936	43.5	26.6
California	1,133	4,308	30.1	21.3
Colorado	187	3,029	36.9	95.1
Florida	94	15,531	0.0	71.2
Illinois	1,177	2,007	13.7	35.7
Kansas	331	1,522	14.5	94.0
Maine	291	842	55.0	40.2
Michigan	647	3,375	16.1	82.1
Minnesota	447	2,066	11.2	97.8
Montana	552	320	80.8	28.4
New Mexico	89	3,392	23.5	100.0
North Dakota	387	377	70.5	66.1
Utah	40	7,650	2.5	100.0
Wisconsin	467	2,143	9.2	79.0
14 State Average	434	3,249	29.1	66.9
U.S.A. Total	17,238	2,679	29.6	64.7

SOURCE: U.S. Bureau of Census, 1972 Census of Governments, Vol. I *GOVERNMENT ORGANIZATION*. Table 13.

antees which provide higher expenditure levels for smaller districts. North Dakota, a foundation state, does this by raising the foundation level of reimbursable expenditures for small districts while the state of Maine provides for discretionary funding allotments to geographically isolated school districts.

Rural school district adjustments, then, are central to the school finance systems of many rural states. Unless there is considerable consolidation or fiscal reorganization of small rural units in these states, rural adjustments appear to be the price for gaining support for reform efforts and for keeping many units within the aid formulae (See Table 16). States with unusually large numbers of districts such as Illinois, Texas, California and Nebraska face a very difficult policy choice. The legislature cannot remain indifferent to the educational opportunities of rural youth, but the legislature can also not perpetuate economically and educationally inefficient small school units. In the states with abnormally large number of districts, incentives for district reogarization or penalties for failure

to reorganize may be preferred over sparsity corrections. Cohn has provided several illustrations of how these reorganization penalties or incentives might work.[31]

A. *How Sparsity Corrections Operate: The Case of New Mexico*

Even before the passage of New Mexico's current school finance law, a previous school aid program (the Greer formula) recognized the greater educational needs of very small schools. It separately weighted elementary, junior high and high schools on the assumptions of higher operating costs in small schools. Although the Greer formula had many redeeming qualities and did provide districts containing more small schools with higher per-pupil allocations, the formula soon fell out of favor.[32] It was the opinion of the Governor's Educational Research Committee (ERC) formed in 1966 that the Greer formula " . . . only scratched the surface of the true equalization problem, was limited in its consideration of the total school staffing problem, and . . . presented a narrow conception of the range of alternatives available in providing state aid to the public schools."[33]

Much of the criticism of the Greer formula focused on its inadequate treatment of school size. In its report, the ERC went on to state: "the weightings derived from the curves used to build the current (Greer) formula do not adequately recognize the sharply increased staffing costs necessary for very small schools, particularly high schools, to offer sound programs."[34] Although the major criticism by the authors of the ERC report related to school size factors, that same criticism would soon come back to haunt them. The proposal of the ERC was adopted by the legislature in 1969 and became known as the "staffing formula." This formula recognized district size but failed to recognize the additional costs of maintaining individual small rural schools. It soon became necessary to provide a separate fund outside of the formula to support "isolated/essential schools." Inadequate recognition of small schools as well as other concerns caused the 1969 staffing formula to fall out of favor.

When the staffing formula went into effect in 1969, the legislature still prepared itself for revisions or changes. House Memorial 13 of the 1970 legislature requested the Chief of the Public School Finance Division to institute a study encompassing all phases of public school finance in New Mexico. The Chief considered the basic problem with the staffing formula to be the lack of recognition of individual school size in the formula. As the 1970 Public School Finance Division Report stated:

> One of the most important factors was the number of schools within a single district. It is obvious for example, that if one district has one elementary school located in a single community with an enrollment of 500, a minimum of 20 teachers ratio of 1 to 25 (sic) within that school. On the other hand, a district with a similar enrollment of 500, housed in four different locations within a large area school district, was sure to have difficulty in maintaining a 1 to 25 pupil-teacher ratio (sic) with the same number of teachers if some of the outlying schools had small enrollments and possibly mixed grade levels. The "old formula" (Greer) did take this into account and rather than use a *total* school district enrollment for the purpose of determining dollar allocations, each individual school unit's enrollment was independently weighted.[35]

Although a great deal of discussion was generated by the Governor's Advisory Council relative to school size adjustment factors, it was always agreed that school size factors were necessary. The discussions centered around the type of formulas used to recognize them. The formulas changed during these proceedings, but the breaking point of 200 average daily membership (ADM) was never in question.[kk]

The 1974 equalization funding formula incorporated the general size adjustment formulas as presented here. The 1975 amendment changed only the sparsity provisions relating to early childhood education and special education units. The revised sparsity adjustment no longer counts severely handicapped pupils. The state is beginning a phase-in of early childhood education programs, thus it is necessary to consider these students in the total elementary school program. Special education Class C and Class D (educable mentally handicapped and trainables) never should have been included for sparsity purposes. The sparsity size adjustment units are based on conditions which dictate small pupil-teacher ratios. The high weights for Class C (1.9) and for Class D (3.8) are based on the necessary pupil-teacher ratio for these special classes. Additional sparsity weightings for these pupils are not justified given their already high weights.

Schools are recognized for the additional units if their

[kk] Regarding individual school program units, New Mexico statutes read as follows:

77-6-18.7 SIZE ADJUSTMENT PROGRAM UNITS —

A. An approved public school with ADM of less than 200 including early childhood education full-time equivalent ADM but excluding special education Class C and Class D ADM is eligible for additional program units. The number of additional program units to which a school district is entitled under this subsection is the sum of elementary-junior high units and senior high units computed in the following manner:

Elementary-Junior High Units

$$\frac{200 - ADM}{200} \times 1.0 \times ADM = Units$$

where ADM is equal to the average daily membership of an approved elementary or junior high school including early childhood education fulltime equivalent average daily membership but excluding special education Class C and Class D average daily membership;

Senior High Units

$$\frac{200 - ADM}{200} \times 2.0 \times ADM = Units$$

where ADM is equal to the average daily membership of an approved senior high school excluding special education Class C and Class D average daily membership.

average daily membership (ADM) is below 200. When enrollment drops below 200 in a school, pupil-teacher ratios begin to drop in nearly a straight line fashion. In addition, some national research supports this figure. In *A Study of the Optimum Size of Secondary Schools*, Clifford Smith notes that schools of fewer than 200 pupils have to pay a premium.[36]

The difference between the elementary-junior high and the senior high formulas is the constant multiplier, 1.0 and 2.0 respectively. These two numbers again recognize pupil-teacher ratios. Studies of New Mexico schools show that not only are pupil-teacher ratios less in normal-size high schools than in normal-size elementary schools, but when schools drop below 200 in enrollment, the difference becomes exaggerated. Because of the number of programs necessary to meet minimum high school standards, pupil-teacher ratios in small high schools are approximately half the ratios for small elementary and junior high schools. Therefore, the multiplier is twice as great. Accordingly, the largest number of additional school size adjustment units accrues to schools of 100 ADM: 50 units to elementary and junior high schools and 100 units to high schools. However, the school size adjustment formula produces less units as the size of school increases.[II]

A study conducted during the legislative session indicated that districts with below 4000 ADM were not profiting from the new formula as much as were larger districts. The addition of the district sparsity factor to the bill was advantageous from at least two points of view. First, it permitted a number of small districts to "gain" under the overall public school funding formula as much as the larger districts with smaller schools thereby gathering political support (there are those who consider that most all of the opposition disappeared after the addition of the district sparsity factor). Second, the public school funding formula is now free of the criticism of prior formulas which did not recognize *both* school and district size factors.

The 4,000 district sparsity figure appears to be working well in New Mexico. Yet, there are no data that support 4000 as the breaking point, or that .15 is the correct multiplier. In addition, it may not be an appropriate formula for any other state. The district size adjustment formula is applied in the same manner as the formula for individual school units.

For very small school districts, the size adjustment factors are necessary to assist in operating costs. Consolidation of these districts long has been voiced as a solution to these high costs. However, this is not always feasible. As a 1967 ERC report states:

> School consolidation is frequently the solution proposed for this problem, but as long as the state permits them to exist, it appears inconsistent to provide substandard support for programs in very small schools; and the fact also remains that in New Mexico because of the sparse population and isolation of certain areas, there will continue to be a number of justifiably small schools.[38]

Currently, other size adjustment factors are being studied for possible implementation in the formula. Are there added costs in having to maintain five or six high schools because of large geographic isolation? Should there be a density factor for very large school districts? These are but two of size correction questions that are currently being reviewed by the New Mexico legislature.

B. *The Complicated Matter of Optimum Size*

The typical sparsity adjustment or the reorganizational incentive requires the state to specify "cut-offs" or "target" sizes for either districts or individual schools, or both. There is an assumption behind this type of legislation that there is some "optimum" district or school size to which all schools or districts should aspire. The argument has been that schools should be encouraged to reorganize and consolidate up to this optimum size, and that the state should provide a financial incentive for this purpose. In the opposite sparsity adjustment situation, the rationale is that schools or school districts operating below this "optimum" should be compensated for the fact that they will, at least in the foreseeable future, never be able to attain this desired "optimum." Unfortunately the question of "optimum size" opens up a virtual Pandora's Box of research problems.

First, there is little agreement among educators on what criterion should be selected to determine the hypothetical "optimum."[39] The criterion most frequently selected is simply costs per student, but equally good cases can be made for breadth and scope of curricula, teacher characteristics, teacher morale and organizational climate, the availability of counseling and other supportive services, the participation rate of students in co-curricular activi-

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[II] Rearranging the elementary-junior high sparsity formula, one notes:

$$\frac{200 - ADM}{200} \times 1 = \frac{Units}{ADM}$$

In an elementary school of zero students, each student generates an additional one unit; for 80 students each student generates an additional .6 units; for 100 students each student generates an additional .5 units, etc. It is at the 100 ADM point where the rectangular area under the point (ADM x Unit/ADM) is maximu, which is the apex of the parabolic curve.

A similar linear relationship of ADM to units/ADM is shown for the high school sparsity formula.

District sparsity was not proposed by the Governor's Advisory Committee. It was developed by the Legislature during formula passage and has become an important addition to the formula. Regarding district units, the statutes read:

> A school district with total ADM of less than 4,000 including early childhood education fulltime equivalent ADM and special education ADM is eligible for additional program units to which a district is entitled under Subsection B of this section is the number of district units computed in the following manner:
>
> District Units
>
> $$\frac{4000 - ADM}{4000} \times 0.15 \times ADM = Units$$
>
> where ADM is equal to the total district average daily membership including early childhood education full-time equivalent average daily membership and special education average daily membership.[37]

The ADM recognized for District Units is a total ADM, including early childhood education FTE and special education students.

ties, the "alienation" of students, and a host of other "input" variables. There is also the important matter of educational "outputs." Does size of school or district really matter when it comes to achievement test scores, employment records of students, students' lifetime incomes, or any number of other variables by which the success of the public schools might conceivably be measured? Research on the relationship of size to output is probably the weakest link since that research rarely gives any indication that size is a significant determinate of output once other more important variables are taken into consideration.[40] If size cannot be shown to be a statistically significant determinate of output, then the secondary question of whether an "optimum" size exists need not be addressed. Size can be shown to be related to the level of services provided, especially to the scope of the program offered, breadth of curricula, etc. However, this relationship simply seems to be linear, that is, the larger the district or the school the broader the curricular offerings. That being the case the "optimum" size is automatically the largest size and it is more meaningful to talk in terms of a "minimum acceptable size," than in terms of an "optimum."

It is true that if the criterion is cost per pupil then the notion of an "optimum" is supported in that, at least in some states, very small districts do have high cost per pupil and also very large districts have high cost per pupil. There is then an optimum size between these extremes.[41] One would anticipate this from the general theory of diseconomies of scale in economics. However, there remain many problems. In the first place the "optimum" notion is more well supported if the unit of analysis is the district than if the unit of analysis is the individual school. When the unit of analysis is program size, rather than either district or school size, the relationship may again be linear, i.e., the larger the program, the lower the cost per student.[42] Even if the unit of analysis is simply the school district, problems remain. There is some evidence to indicate that the "optimum" point may very from population to population (hence from state to state) and perhaps more important, from one point in time to another point in time. The current decline in pupils probably affects these "optimum size-least cost" points, but we have no clear idea at present just how this takes place.

The state of affairs described above results in figures like the New Mexico 4,000 ADM and the Texas 1,000 ADA resting as much on "informed professional judgment" as on carefully researched parameters. Since any state legislature cannot be absolutely sure that the funds it puts into sparsity factors or reorganization adjustments are indeed economically and educationally sound, it should come as no surprise that many states are hesitant to invest large sums of money in such provisions.

C. *Fiscal Effects of Geographic Aid Adjustments*

Rural areas generally seem to gain the most from geographic aid adjustments. In New Mexico, for example, it is not uncommon for school districts to have 50 percent or more of their aid allotments determined by sparsity provisions. In Utah the impact is similar though the sparsity adjustments there are not as powerful as Table 17 shows. There are gradations in the sparsity formulas in several

TABLE 17

DISTRIBUTION OF SPARSITY WEIGHTED PUPIL UNITS BY DISTRICT: UTAH, 1973-74

	Sparsity Weighted Pupil Units	Total (WPU's)	Sparsity WPU's as a % of Total WPU's
Alpine	27.340	21500.728	1.27%
Beaver	189.440	1492.110	12.70
Box Elder	138.170	10281.800	1.35
Carbon	178.880	4806.435	2.72
Daggett	137.090	441.750	31.49
Duchesne	249.210	4208.423	5.92
Emery	399.115	2448.277	16.30
Garfield	479.920	1707.459	28.11
Iron	147.300	3945.599	3.73
Kane	245.475	1389.549	17.67
Millard	338.760	3024.322	11.20
Nebo	4.156	11598.340	.04
N. Sanpete	208.425	1699.643	8.06
N. Summit	72.960	905.215	8.06
Park City	112.000	737.875	15.18
Piute	181.690	741.418	24.51
Rich	227.375	786.757	28.90
San Juan	142.770	3398.750	4.20
Sevier	124.450	3780.096	3.29
S. Sanpete	209.340	2255.149	9.28
S. Summit	60.160	985.912	6.10
Tintic	186.500	605.961	30.78
Tooele	240.585	7888.197	3.05
Washington	185.560	5483.763	33.84
Wayne	227.970	831.739	27.41
Total (N-25)	4805.035	96940.267	4.95

states, however, intended to phase-out the additional subsidy as districts grow in size. They are of two types; in one case—Kansas—they are based on the district enrollment category—ones that are less than 400 pupils, ones with from between 400-1,200 students, and all others. In other states there are even more variations often ranging to four or five classes.

Rural adjustments do have a major impact on affected local districts. In many New Mexico school districts, the size adjustment units constitute a large portion of the total units. Compare, for example, the case of Quemado with Taos. The Quemado School District in 1975-76 has an estimated ADM of 194 distributed among three separate schools ranging in size from 46 to 98 pupils. Under the New Mexico formula, size adjustment units account for 46 percent of the school district's total program units and, accordingly, 46 percent of its total program costs.[mm] In contrast, the Taos School District has a projected enrollment for 1975-76 of 3,327 ADM, but only three of its eight schools have less than 200 pupils. Thus, while Taos has a larger number of size adjustment units than Quemado, the units account for only 5 percent of its total program units and associated costs.[nn]

IV. Summary Conclusions

Formula adjustments to basic school aid formulae are changing and they more frequently apply to more than just a few selected districts. Urban adjustments in particular have increased in number, in variety, and, insofar as can be determined, in funding commitments during the post-*Serrano* period. Simple population density and school district size corrections have given way to increased use of pupil weighting schemes which count extra for low income or otherwise disadvantaged students and to increased use of fiscal capacity measures which favor urban areas. Municipal overburden has been explicitly addressed for the first time in one state. Cost-of-education differences based on imputed overall price differentials between districts (by a cost-of-living index proxy), rather than on differences in district demand and capacity to pay for teachers with varying levels of experience and college training, have been explicitly addressed for the first time in another state.

- Urban corrections, on the other hand, have been facing a relatively tough road in some of the states that have them. For instance, the municipal overburden correction in Michigan has not been fully funded during the entirety of its existence. And in Minnesota there has been considerable interest in replacing the urban correction there either with a categorical grant for educational disadvantagement or with putting additional controls on the AFDC grant which will insure that aid will be targeted on disadvantaged children. More generally others have questioned the need for urban corrections since analysis does reveal that total urban taxpayer burden in some cities is not higher than in surrounding suburbs and that some cities export a considerable amount of their tax burden (although analysis has never fully indicated what the overall extent of *imported* taxes might be).
- Adjustments offer the greatest amount of gain for rural areas which would generally have to experience substantial tax rate increases (which certainly would be tolerated in some smaller, richer rural areas) or drastically cut back on their expenditures, thus, reducing the basic quality of their education. Urban areas generally gain less per pupil from specifically urban corrections, but still often press for them when no comparable additional funding is received in categorical areas. They still make up a rather small part of overall state education budgets.
- New means of treating the special fiscal problems of urban and rural areas—staff-based foundation programs for rural areas and different wealth measures and expanded definitions of educational need for urban areas (i.e., graduated pupil weighting systems) are becoming popular. While generally benefiting more districts than did the older rural and urban corrections, they may be the wave of the future for channeling extra funds into needy rural and urban areas.
- Geographic adjustments may stand in the way of other improvements of state-local finance policy need state subsidies. Rural adjustments may slow the pace of school district reorganization and result in needless aid to these areas. Urban adjustments may prevent detailed state scrutiny of the extraordinary needs and costs that large urban districts experience. Adjust-costs that large urban districts experience. Adjustments then may be causing state legislatures to overlook the really unique fiscal problems of rural and urban areas that could be solved by other means.
- Perhaps the key criterion for evaluating geographic adjustments centers on whether these corrections have an inherent and defensible rationale which permits

[mm] Calculations for Quemado size adjustment units.

	ADM	Units	% Of Units	@$703/ Unit	$/AD,
Adjusted Program Units	194	232.185	54%	$163,226	$841.37
Size Adjustment Units					
Quemado Elementary	50	37.500			
Datil Elementary	46	35.420			
Quemado High	98	99.960			
School Size Adjustment		172.880	40%	121,535	626.47
District Size Adjustment	194	27.689	6%	19,465	100.34
Total Size Adjustment		200.569	46%	141,000	726.81
Total Program		432.754	100%	$304,226	$1,568.18

[nn] Calculation for Taos size adjustment units.

	ADM	Units	% Of Units	@$703/ Unit	$/ADM
Adjusted Program Units	3,327	4,284.382	95%	$3,011,921	$905.30
Size Adjustment Units					
Arroyo Rondo Elem.	66	44.220			
Arroyo Seco Elem.	135	43.875			
Talpa Elementary	132	44.808			
School Size Adjustment		132.975	3%	93,481	28.10
District Size Adjustment	3,327	81.973	2%	59,033	17.74
Total Size Adjustment		216.948	5%	152,514	45.84
Total Program		4,501.330	100%	3,164,435	$951.14

preferential treatment of affected districts. One must also consider whether there are suitable ways to assist needy rural and urban areas in basic aid formula revisions which provide additional aid to many rather than just a few districts. Possibilities in this direction have certainly been indicated in many of the school finance studies conducted in such states as New York, Michigan and Connecticut. Yet the fiscal bill for such corrections generally increases when they go well beyond the intended beneficiaries; they may also require collection of a substantially greater amount of data than is now collected in many states. When this occurs legislative appeal for such measures may be diluted. Consideration then turns quickly back to those adjustments which have a very targeted character and which can insure essential political support for the aid change.

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Chapter IV

TAX AND EXPENDITURE CONTROLS: THE PRICE OF SCHOOL FINANCE REFORM

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State controls on school district budgets have been perhaps the most controversial aspect of school finance reform in the 1970's. Adopted by every post-*Serrano* reform state except Illinois and Michigan, the intent of these controls has been threefold: (1) to limit or reduce local property tax rates; (2) to brake the expansion of expenditures in fiscally advantaged school districts; and (3) to minimize the number of new state dollars required to equalize the status of fiscally disadvantaged school districts. Budget controls, however, have been implemented in substantially different ways, have achieved different results, and have experienced varied political fortunes.

I. Approaches to Budget Controls

A. *Expenditure Limitations*

Some reform states have implemented budget controls by establishing limitations on school district expenditure levels. By the beginning of 1975, controls of this sort had been included in the revised school finance legislation of Arizona, Colorado, Iowa, Montana, Kansas and Wisconsin. Montana, however, kept its initial expenditure controls only very briefly and Wisconsin phased out its expenditure controls in favor of a more complex set of revenue limitations.

All expenditure limitation laws adopted as a part of state school finance revisions in the last five years share several important features. They all have stipulated that school districts may increase their expenditures from one year to the next at no more than some fixed percentage or dollar amount.

The intent of allowable growth controls generally has been to permit all school districts to expand their budgets at a rate equal to anticipated growth in the cost of living or consumer price index. As Table I indicates, however, most of these growth limits have not been set at levels which have been sufficient to insure full protection against the double-digit inflation of 1974 and 1975, a factor which played a major role in the decision of the Montana legislature to abandon its 7 percent expenditure growth limitation after only a short trial.

Most of the expenditure limitation laws have included provisions which allow some school districts to raise their expenditures at a rate greater than basic fixed limit. These provisions usually allow growth greater than the basic limit under several circumstances. These include: (1) well-above or below average enrollment; (2) unusual loss or gain in enrollment; and (3) budget needs beyond the control of local school officials. Application of these exceptions in some cases is accomplished on a formula basis and in other instances through State budget control boards such as those instituted by Colorado, Iowa, Kansas, and Wisconsin. The complexity of these limitations can be seen by a detailed review of the fairly typical expenditure control legislation adopted by Kansas.

B. *Kansas Expenditure Limitations: A Typical Case*

The Kansas school District Equalization Act of 1973 imposed expenditure controls on the general operating expenses of the State's 309 unified school districts.* Each district in the State was accorded a maximum budget per pupil (BPP) for 1973-74 which they could exceed on the basis of an appeal to the State Board of Tax Appeals. Without appealing to the State Board, a district could increase its per pupil expenditures by no more than 15 percent in both 1973-74 and 1974-75.

Each district has a three-tiered option for increasing its expenditures from year to year. A district can increase its budget by no more than 105 percent of the median budget per pupil in its enrollment class. Or it could increase its budget per pupil to the highest budget per pupil in its specific enrollment category upon approval of the electors in the district. In neither case, however, can a district increase its per pupil expenditures by more than 15 percent over its prior expenditure. No district is allowed to

*The general fund of a district is the one from which operating expenses are paid and from which the general State aid property tax is levied for operating expenses and which also includes receipts from the two mill county levy, the State income tax rebate, receipts from P.L. 874, the district's share of the intangibles tax, and other such monies as are provided by law.

TABLE 1
BASIC FEATURES OF TAX AND EXPENDITURE CONTROLS IN 14 REFORM STATES

State	Type of Control	Range	Provisions for Waiver or Override
Arizona	Expenditure[3]	7%+ (74-75)	Override Referenda
California	Expenditure[3]	15% (73-74)	Override Referenda[1]
Colorado	Expenditure	7-12%	Budget Review Board
Florida	Tax	6.3-8 Mills	Referenda
Illinois	None[4]		
Kansas	Expenditure	Up to 15%	Board of Tax Appeals
Maine	Tax	2.5 Mills Above Foundation Requirement	No
Michigan	None		
Minnesota	Tax	30 Mills	Referenda
Montana	Expenditure	7%[2]	N.A.
New Mexico	Tax	8.92 Mills for All Districts	No
North Dakota	Tax	24 Mills	Override[5]
Utah	Tax	38 Mills	No
Wisconsin	Expenditure	$55[2,6]	Yes

[1]Ruled unconstitutional in *Serrano* decision
[2]Dropped after first year
[3]State aid increase limited by economic growth
[4]State aid increase to any district cannot exceed 25%
[5]Applies only to districts above 4,000 population
[6]Replaced by expenditure controls for 1975-1977 biennium

budget in any year an amount for operating expenses less than $600 per pupil.

To determine the specific expenditure options for each district, the state board of education annually prepared a budget schedule like the one appearing in Chart I showing the median budgets per pupil of all districts in the state. Schedules such as those appearing in Table 2 illustrate the range of budgets per pupil in the various enrollment classes of Kansas school districts. Median budgets per pupil are then computed for three major enrollment categories: school districts with enrollments under 400 pupils, districts with enrollments between 400 and 1,000 pupils, and all school districts with enrollments of 1,000 pupils or more.** These median budgets are used to determine one of the optional expenditure limitations of a district.

These expenditure limitations were designed to allow the low expenditure districts within each enrollment category to increase their BPP by a greater percentage than the high expenditure districts, narrowing the gap over a period of years. However, all districts must spend $600 per pupil.

If the district did not budget in any year the full amount allowable under the basic limitations (excluding the election provision), the difference could be added to its legal budget for operating expenses at a later year, provided that the total increase did not exceed 115% of its BPP in the preceding school year. This provision was intended to make it unnecessary for districts to budget the full amount allowable in each year, when such amount may not have been needed at the time, in order to protect their budget base in the future.

If the enrollment of a district in the current school year has declined by less than a specified percentage from the enrollment in the preceding school year, the amount which the districts may budget and expend may be computed on the basis of the enrollment of the preceding year. The specified percentages are:

10% for districts in the smallest enrollment category under 400 pupils; 7.5% for districts in the middle enrollment category; and, 5% for the districts in the largest enrollment category.

If a district expended in any school year an amount for operating expenses which exceeded the budget limitations outlined above, the excess is deducted from amounts payable to the district during the next school year from the State school equalization fund.

The state board of tax appeals is authorized to allow a school district to increase its legally adopted budget of operating expenses upon a finding by the board that:

(1) Construction of newer additional school facilities caused an increase in operating expenses greater than the school district was permitted to budget under the budget limitations.

(2) The requirement of law to provide special education caused an increase in operating expenses greater

**The budget per pupil specified for districts with under 400 pupils is the median budget per pupil of all districts with 400 to 499 enrollments. This was a policy decision made by the legislature in order not to establish an excessive budget per pupil norm for these small districts, many of which have very high budgets per pupil.

CHART I
USD's GENERAL FUND BUDGET PER PUPIL BY ENROLLMENT CATEGORY
1974-75

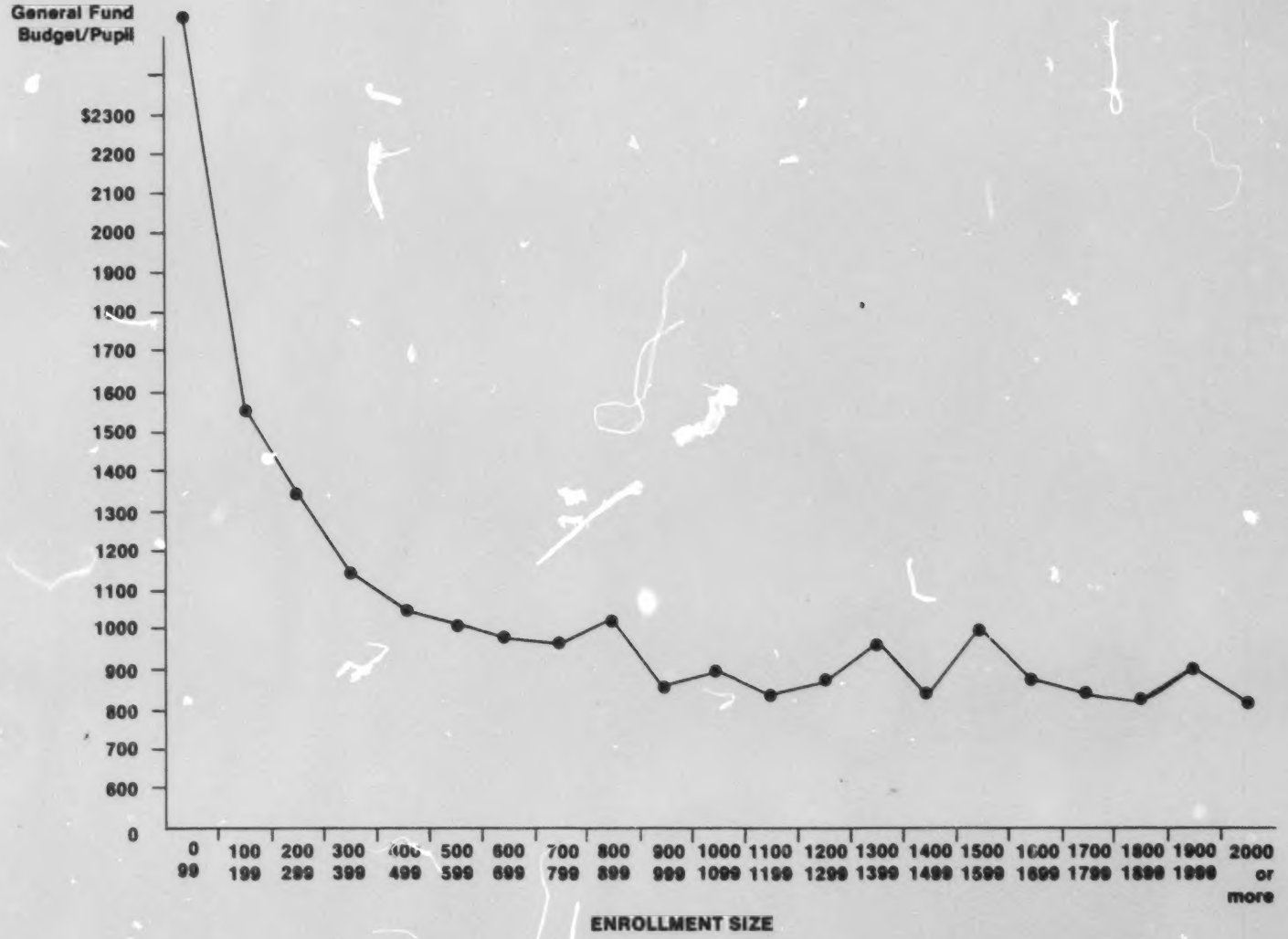

TABLE 2

SELECTED FISCAL FEATURES, KANSAS EXPENDITURE CONTROLS 1974-75

District Enrollment Intervals	Number District Per Interval	Number Of Pupils	Percentage of Total Pupils	Cumulative % of Total Pupils	Lowest	Median	Highest
0 - 100	1	90.0	.02	.02	2513.28	2513.28	2513.28
100 - 200	20	3188.1	.71	.73	1136.92	1563.25	2208.54
200 - 300	31	7606.1	1.70	2.43	999.76	1360.79	1832.11
300 - 400	22	7956.4	1.78	4.21	938.59	1130.87	1406.92
400 - 500	30	13424.4	3.00	7.21	744.18	1038.25	1498.42
500 - 600	39	21202.1	4.74	11.95	759.91	1032.10	1756.48
600 - 700	30	19460.0	4.35	16.30	759.44	1004.45	1224.96
700 - 800	22	16417.0	3.67	19.97	761.27	978.95	1314.02
800 - 900	12	10139.1	2.27	22.24	770.03	1014.84	1299.16
900 - 1000	11	10394.7	2.32	24.56	704.32	880.02	1074.23
1000 - 1100	9	9372.3	2.10	26.66	791.36	896.79	973.47
1100 - 1200	8	9182.8	2.05	28.71	774.40	852.22	1069.17
1200 - 1300	7	8751.8	1.96	30.67	718.72	885.67	1092.80
1300 - 1400	5	6654.5	1.49	32.16	855.43	954.60	1114.39
1400 - 1500	5	7221.5	1.61	33.77	814.94	847.80	880.82
1500 - 1600	1	1545.5	.35	34.12	999.14	999.14	999.14
1600 - 1700	4	6669.4	1.49	35.61	729.35	880.95	1186.02
1700 - 1800	6	10496.5	2.35	37.96	803.25	844.58	883.52
1800 - 1900	5	9137.9	2.04	40.00	830.32	863.67	1261.89
1900 - 2000	3	5830.2	1.30	41.30	837.57	903.11	919.45
2000 & over	37	262571.3	58.70	100.00	777.63	856.08	1020.26
TOTAL	308	447301.60	100%				

Enrollment	Median
0 - 400	1350
400 - 1000	1002
1000 - over	863

Table 2 shows the number of districts per interval, number of pupils per interval, cumulative of total pupils, the lowest, median and highest general fund budget per pupil expenditures by selected enrollment categories for all unified school districts for school year 1974-75.

than the district was permitted to budget under the budget limitations.

(3) The requirements of law to pay out-district tuition for vocational education and the requirements of contractual agreements for payments of amounts for an area vocational school cause an increase in operating expenses greater than the district is permitted to budget under the budget limitations.

(4) The requirements of law to provide transportation of students cause an increase in operating expenses greater than the district is permitted to budget under the budget limitations.

(5) Operation of an existing program of cooperative special education at a level of financial support equal to that of 1972-73 school year causes an increase in operating expenses under the provisions of this act and the assumption that such increase by the cooperating districts including the sponsoring district is agreed upon subject to appeal.

No appeals were to be made under items (4) and (5) aforementioned after August 1, 1973.

During the 1974 legislative session, amendments to the 1973 school finance act changed the 105% BPP increase by a district in the preceding year to an amount governed by the following schedule.

Increase Authorized in Budget Per Pupil	Fiscal Year 1974 State General Fund Receipts
105%	less than $523,500,000
106%	$523,500,000 to $527,000,000
107%	more than $527,000,000

Thus, under conditions where districts were limited to budgets per pupil increases of 105% of the previous year's BPP, H.B. 1963 allowed school districts to increase their budgets in accord with the above schedule for the 1974-75 school year.

Table 3 shows the increases in general fund budgets per pupil authorized for 1973-74 and 1974-75. (These figures do not reflect changes in budget authority due to appeals or declining enrollments.)

Another 1974 amendment revised the appeal provisions to the act by adding an appeal reason relating to enrollment changes (S.B. 641). An appeal was authorized in cases where unusual occurrences had affected or would affect the enrollment of a district so as to cause an increase in operating expenses per pupil greater than the district otherwise would be permitted to budget or expend under the school district equalization act.

This amendment also made permanent the appeal reason for the mandate of transportation of students. The law as enacted by the 1973 legislature provided an appeal reason for the mandate of transportation of students when it could be demonstrated successfully to the state board of tax appeals that the requirements of law to provide transportation of students would cause an increase in the operating expenses greater than the district was permitted to budget or expend. The appeal reason was designed to aid school districts in making the transition in the 1973-74 school year to the new school finance plan adopted by the 1973 legislature. The appeal was applicable only until August 1, 1973. Table 4 summarizes appeals for the 1973-74 and 1974-75 school years.

1975 amendments (S.B. 480) changed the basic budget limitations applicable to school districts for the 1975-76 school year. A school district may increase its general fund budget by the lesser of (a) 15% of its BPP in 1974-75 or (b) 10% of the median BPP in 1974-75 of all districts in the same enrollment category. In any case, however, a district may increase its budget per pupil by 10% over its budget per pupil in 1974-75. The foregoing 10% increases will revert to 5% as provided in the 1973 act in 1976-77 and subsequent years unless the law is changed in 1976 or thereafter.

The temporary 10% increase recognized the effects of inflation on the operating costs of school districts and on the future costs of living of employees of school districts. In 1974, the legislature raised the minimum increases allowable in the BPP from 5% to 7% for 1974-75 only, also in recognition of the effects of inflation. That minimum increase would have reverted to 5% for 1975-76 if House Sub. for S.B. 480 had not been enacted.

A new budget appeal also was added by House Sub. for S.B. 480. The new appeal provision provides that any district may request authority from the State board of tax appeals to increase its general fund budget by more than

TABLE 3

GENERAL FUND BUDGET PER PUPIL INCREASES

Authorized by Kansas Statutes
Excluding Appeals and Declines

1973-74		1974-75	
Percentage Increase Authorized	Number of Districts	Percentage Increase Authorized	Number of Districts
5%	179	7%	182
5% to 7½%	17	7% to 10%	18
7½% to 10%	18	10% to 15%	47
10% to 15%	29	15%	62
15%	66	Over 15%	0
Over 15%	1		
TOTAL	310	TOTAL	309

TABLE 4

APPEALS TO KANSAS BOARD OF TAX APPEALS, 1973-1975

For the 1973-74 Budget

Appeal Reasons	Number of Appeals	Amount Requested	Amount Granted By Board
1. New or Added Facilities	13	$ 814,361.22	$ 810,418.22
2. Special Education Mandate	21	738,839.17	738,839.17
3. Vocational Education	4	60,909.00	60,909.00
4. Transportation Mandate	103	2,235,580.30	2,192,314.28
5. Special Education Coop[1]	25	445,709.33	445,709.33
(Subtotal Appeals for General Fund Budget Authority)			
Subtotal	166	$4,295,399.02	$4,248,190.00
6. Enrollment[2]	22	$ 848,688.50	$ 776,918.50
7. Transportation Tax Levy[1]	15	659,252.68	618,937.68
GROSS TOTAL	203	$5,803,340.20	$5,644,046.18

For the 1974-75 Budget

1. New or Added Facilities	10	$ 765,115.53	$ 756,615.53
2. Special Education Mandate	30	1,325,377.25	1,183,908.25
3. Vocational Education	0	0	0
4. Transportation Mandate	19	358,936.41	358,936.41
(Subtotal Appeals for General Fund Budget Authority)		$2,449,429.19	$2,299,460.19
5. Enrollment[2]	0	0	0
GROSS TOTAL	59	$2,449,429.19	$2,299,460.19

[1]These appeal reasons expired August 1, 1973.
[2]For 1973-74, enrollment appeals were to spend money already budgeted. For 1974-75, school districts are expected to begin appeals in the near future.

TABLE 5

EXPENDITURE, WEALTH, AND STATE AID DATA OF KANSAS SCHOOL DISTRICTS BY WEALTH DECILE, 1973-74 & 1974-75

Wealth Decile	1973-74 Wealth/Pupil	1973-74 General Fund Budget/Pupil	1973-74 State Aid/ Pupil	1974-75 Wealth/Pupil	1974-75 General Fund Budget/Pupil	1974-75 State Aid/ Pupil
1	$14,904	$ 700	$429	$16,120	$ 784	$501
2	20,243	780	420	23,206	868	501
3	23,283	764	375	27,198	870	440
4	26,310	839	384	31,087	923	409
5	29,604	864	351	34,972	985	389
6	32,577	943	330	39,171	1,077	342
7	37,013	992	301	42,250	1,101	281
8	43,475	1,092	236	52,796	1,186	174
9	52,002	1,155	66	64,339	1,299	42
10	75,705	1,460	0	89,476	1,549	0

(Total Districts = 310)

Source: NCSL computations from school finance data supplied by the Kansas Department of Education

allowed under the basic budget controls referred to above in order to implement new educational programs or enhance existing educational programs or programs required by federal or State laws, federal or State courts, or federal or State agencies. Thus, school districts may be granted additional budget authority in order to comply with State or federally mandated programs.

As Table 3 notes, expenditure controls have been effective in keeping expenditure increases manageable in the bulk of Kansas school districts in 1973-74 and 1974-75. At the same time, however, these controls have also prevented a bridging in the expenditure gaps between rich and poor districts in the state. (See Table 5). Thus, to a great extent, school expenditure controls have brought relief to the taxpayer in the poor district rather than any major expansion in the educational outlays for poor children.

C. *Aid Disincentives and Changing Cost Controls: The Case of Wisconsin*

Following the 1971 educational finance decisions in California, Minnesota and Texas, Wisconsin modified its state school aid distribution policies in an attempt to eliminate disparities in local tax effort and to reduce differences in per pupil expenditures.

In January, 1972, Governor Patrick J. Lucey convened a forty-seven member Task Force on Educational Financing and Property Tax Reform and directed the group "to examine the entire base for financing public, elementary and secondary education in Wisconsin . . . and study alternatives and make recommendations for shifting the base of public school funding from the local property tax to other means of public support".[1] After one year of deliberation the committee submitted its recommendations to the Governor who, in turn, incorporated the Task Force's work into his 1973-75 executive budget proposal.

Wisconsin's equalization school aid formula had remained virtually unchanged since its inception in 1949. State aids were distributed according to the property wealth of each school district or more specifically, on the basis of the tax base behind each pupil. In essence, the state guaranteed a tax base for each student and provided funding on the basis of the difference between that guaranteed amount and the district's actual property valuation. For example, assume that the state guaranteed a valuation of $50,000 and a school district had an actual per pupil valuation of $25,000. The state would have contributed one-half of the aidable cost associated with educating that student. As the gap between the guarantee and the actual valuation widened, state aids to that particular district increased. Stated another way, a school district's general aid was based primarily upon its wealth, as defined in terms of property tax base and its school tax rate. In effect, this formula can be viewed as a property tax imposed by local districts upon the state. As cited in the above example, the state made "property tax payments" by way of school aid on the $25,000 of property valuation which it guaranteed to the local district beyond that which the district experienced.

In addition to the equalization aid indicated above, the state, prior to 1973-74, made flat aid payments to those districts whose per pupil valuation exceeded the guarantee. In 1972-73 such districts received payments in the amount of $88 for each high school student and $70 for each elementary student. Consequently, all school districts in the state derived some benefit from the aid distribution formula regardless of their relative wealth.

With regard to school financing, the 1973 legislative session faced a two-fold task. First, attempts were made to place all districts under the equalization formula and thus address *Serrano*. Second, effort was directed at reducing the burden that the property tax bore in supporting local school expenditures.

Going into the 1973 session, the state's fiscal position was unusually bright. With an anticipated budget surplus of $217 million from the 1971-73 biennium, $120 million from the newly enacted federal revenue sharing legislation and a period of unparalled growth in state revenue sources, the Governor and the Legislature were afforded the opportunity to deal with both school finance reform and property tax relief issues without affecting a general tax increase and without reducing the existing level of state services in other program areas.

When enacted into law in August, 1973, the biennial budget made the following revisions in the financing of elementary and secondary education:

1. Increased the level of state support from 30% of school costs to 40% by appropriating an increase of more than $300 million in general state aid over that of the previous biennium.

2. Eliminated the payment of flat aids and thereby included all districts within the equalization formula.

3. Established a "recapture clause" which required that beginning in 1976-77 certain school districts make payments to the State, from local property tax collections, for distribution to other districts.

4. Expanded the definition of shared (aidable) costs to include the employer's share of teachers retirement and social security payments, previously paid entirely by the state, and up to $100 per pupil for debt retirement and annual capital outlay costs. Essentially, the only expenditures not eligible for sharing would be those which exceeded the $100 amount for debt service and capital outlay.

5. Mandated that by July 1, 1975, all school districts comply with the following 13 standards:

a. Insure that all professional staff members are certified.
b. Comply with statutory provisions regarding employment relations.
c. Conduct continuous in-service training.
d. Provide remedial reading services in grades K-3.
e. Operate 5-year kindergartens.
f. Provide programs for handicapped students.
g. Make available guidance and counseling services.
h. Hold 180 days of actual instruction.
i. Provide for emergency nursing services.
j. Provide adequate instructional materials.
k. Provide safe and healthful facilities.
l. Provide for instruction in health, physical education, art and music.
m. Levy a minimum tax.

In addition to the formula revision and the implementa-

tion of the mandated standards, the budget act addressed the property tax issue by imposing spending disincentives and cost limitations upon school districts. When the decision was made to substantially increase the level of state aid to local districts, spending limitations were also enacted to insure that per pupil cost disparities throughout the state would be reduced and that a major portion of the $300 million of increased state support would find its way into the taxpayers' pocket and not into expanded programs.

Under the previous formula, aidable costs were subject to one guaranteed valuation which was established by the Legislature. Thus, if District A spent $1,000 per pupil and District B spent $1,200 per pupil and both were aided at a level of 50%, District A would receive $500 in state aid per pupil and District B, $600. In the 1973-75 budget two guaranteed valuations were established.

The primary guaranteed valuation, determined by the Legislature, was to be used to calculate aids on those shared costs which a district incurred which were at or below 110% of the prior year's statewide average cost per pupil. A lower, secondary guaranteed valuation was instituted to determine aids on shared costs which exceeded the 110% level. The secondary guarantee was set as the statewide average valuation per pupil. For the 1973-74 school year, the primary and secondary guarantees and the 110% cost ceiling were as follows:

Primary guaranteed valuation	$71,200 per pupil
Secondary guaranteed valuation	42,700 per pupil
110% cost ceiling	1,133 per pupil

In order to illustrate the impact of the secondary guarantee as a disincentive to increased spending, the following example is provided. Assume School District A had a property tax base of $35,600 behind each student and realized per pupil shared cost expenditures of $1,400. Aids would be calculated on amounts under the 110% cost ceiling ($1,133) by employing the primary guarantee of $71,200. Because the district's actual valuation of $35,600 represents one-half of primary guarantee, the local property tax would bear one-half of the $1,133 and the state would provide the other one-half as general aid. Therefore, the primary state aid would equal $566.50.

The remaining shared cost expenditures of $267 per pupil ($1,400 - $1,133 = $267) would be aided under the secondary guarantee of $42,700. In this instance, the district's valuation of $35,600 represents approximately 83% of the $42,700 guarantee. Therefore, the property tax would support 83% of the $267 and the state would provide, as secondary state aid, the remaining 17% or $45.

Under the above example, the district would receive 50¢ per dollar in aid on its primary costs of $1,133 but only 17¢ per dollar on those costs which exceed the 110% ceiling. In order to maximize the aid formula and minimize the burden on the property tax, it is to the advantage of a school district to keep its costs at or below the 110% level.

The concept of the secondary guaranteed valuation as a spending disincentive serves two purposes. It not only encourages school districts to stabilize or control expenditures, but also has the potential of reducing spending disparities among districts. Although data are not yet available to substantiate this hypothesis, it appears that the two-tier formula will, as both high and low cost districts attempt to maximize aid payments, gradually tend to equalize spending patterns throughout the state or at least reduce the present range of expenditures.

The second and more direct cost control included in the 1973 budget act was one which limited the amounts which districts could budget for the 1973-74 school year. This control was a direct result of the desire to insure that a major portion of the $300 million of increased aid would be channeled into tax relief.

The budget control limited districts to a per pupil shared cost increase of $55 over 1972-73 shared cost expenditures. Excluded from the $55 limitation were the following four items:

1. Transportation costs.
2. Principal and interest payments on long-term indebtedness.
3. Annual capital outlay expenditures.
4. That portion of increase of the employer's share of teachers' retirement and social security payments which exceeded $7.50 per pupil.

In addition to the above exclusions, the Legislature provided that districts could use either current or prior year's enrollment data in determining the allowable shared cost budget. This provision was included to recognize the fact that some districts might have unusual difficulty living within the cost limitation because of declining enrollments.

Finally, the act granted authority to the state superintendent to exempt school districts from the limitation to the extent necessary to offset the following conditions:

1. Evidence that the cost limitation would leave no alternative but to reduce educational programs below an adequate level.
2. Evidence that the cost limitation would prohibit compliance with at least one-third of the 13 minimum standards.
3. Evidence that the cost limitation would prohibit continuation of programs previously funded by the federal government.

Shortly after the budget was enacted, the Governor signed into law legislation which required all school districts to meet the educational needs of children with handicapping conditions. As part of that act, provision was made to exclude from the limitation costs associated with new or expanded special education programs.

To deal with appeals for exemption from the control under conditions listed above, the state superintendent established, within the Department of Public Instruction, a three-member appeal commission which reviewed and acted upon each request for relief from the budget limitations. Of the state's 436 school districts, 199 entered an appeal to the state superintendent. These districts requested exemptions which totalled $20,320,000. Of this amount, $10,802,100 or 53.2% was exempted.

Following the 1973-74 cost control experience, the Department of Public Instruction conducted a study[2] which

examined the effect of the budget limitations. That review disclosed the following:

1. Of the 436 districts, 242 experienced a shared cost growth of less than $55 per pupil and 194 districts were either at or over the $55 figure.
2. After completion of the appeal process, 51 districts were in excess of the cost control limitation by an average of $2,500 per district. The remaining 385 districts were under the limitation by an average of $28,500 per district.
3. Although high-cost districts generally appeared to show greater cost growth than low-cost districts, the concentration of districts around the $55 level indicated a reduction of some of the increase in disparities of per pupil expenditures.

The primary goal of the 1973-74 cost limitation was to insure property tax relief by a reduction in the local school tax effort. It is clear that in combination these two provisions accomplished the objective that the Governor and the Legislature sought though school expenditure gaps still existed among rich and poor districts in the State.

As the 1975-77 legislative session approached, Wisconsin faced a fiscal situation directly opposite that which it encountered at the beginning of the 1973 biennium. Similar to the rest of the nation, Wisconsin was in the midst of an economy which produced spiralling inflation on the one hand and recession on the other; the combination of which pointed to depressed revenues and increased demands for services.

In light of this situation, Governor Lucey indicated in the executive budget that the administration would demand increased productivity in state operations, curtailment or elimination of certain governmental programs and tight spending controls in order to avoid a general tax increase and to maintain the commitment made to reform measures enacted in the previous biennium.

Foremost among these commitments was that of maintaining the approximate 40% level of state support for elementary and secondary education. To maintain the 40% concept and avoid substantial property tax increases, the executive branch recommended that cost limitations for school districts be reinstituted.

Two other factors played an important role in the decision to implement a new set of expenditure controls. In 1974-75, school costs increased substantially over those of 1973-74. The $55 budget control was instituted only for the 1973-74 school year and there is some evidence that districts delayed certain expenditures until the cost control was lifted in 1974-75. This fact, coupled with inflationary increases led to substantial cost growth in 1974-75 over that of previous years. In 1974-75, school district expenditures in Wisconsin increased approximately $151 million over 1973-74 costs, a rate of 13.9 per cent. In comparison, 1973-74 costs (the year of the cost control) increased only $60 million or 5.8% over expenditures of 1972-73.

Property taxes increased substantially for the 1974-75 school year. Table VI indicates the total statewide property tax levy for elementary and secondary school purposes for the period 1971-72 through 1974-75.

TABLE 6

WISCONSIN PROPERTY TAX LEVIES FOR SCHOOL PURPOSES—1971-72 THROUGH 1974-75

Year	Property Tax Levy	Increase Over Prior Year	Percent Increase
1971-72	$696,030,701	—	—
1972-73	727,749,472	$ 31,718,771	4.56%
1973-74	647,959,842	-52,789,630	-7.25
1974-75	789,959,879	115,000,037	17.04

The property tax increase in 1974-75 served to offset much of the progress that had been accomplished in achieving property tax relief in 1973-74. Therefore, it is clear that the absence of a limitation in 1974-75 significantly affected increased spending.

The other factor in re-establishing a cost control was the state's declining enrollment. The live birth rate in Wisconsin reached its peak in 1961. Since that time the rate has shown a steady decrease each year. Wisconsin's elementary and secondary school enrollments reached a high point in 1971-72, but in each subsequent year the number of students has declined dramatically. Consequently, enrollment declines were an integral part of a new set of expenditure controls which were structured according to the following criteria:

1. That the control be based upon each district's prior year expenditures.
2. That the allowable percentage increase in cost be determined on a per pupil basis so as to recognize declining enrollments.
3. That some appeal and/or referendum mechanism be provided for situations which would make compliance with the control unrealistic.

This cushioned the State aid loss that districts would have experienced as a result of declining enrollments.

Within that framework the Legislature enacted, as part of the 1975-77 biennial budget, an on-going, statutory cost limitation. Under the new budget controls, the per pupil shared cost increase of each district would be limited to 9.5% over the per pupil shared cost of the previous year. Therefore, if a school district experienced a per pupil shared cost of $1,200 in 1974-75 its maximum 1975-76 per pupil shared cost would be $1,314 ($1,200 X 1.095% = $1,314).

In his original proposal, the Governor recommended that current year's membership be employed in calculating the allowable budget. Therefore, if a district's enrollment were down from 3,000 students in 1974-75 to 2,800 in 1975-76, it would multiply that $1,314 allowable per pupil cost (calculated above) by the 2,800 figure. The case was made by school officials and the teacher unions that it was incorrect to assume that there is a direct correlation between a single student and the cost of educating that child in terms of per pupil expenditures. That is, a school cannot realize a savings directly equal to its average per pupil cost each time a student leaves the district.

Accepting this theory, but at the same time expressing a desire to witness a decline in expenditures with reduced

enrollments, the Legislature amended the Governor's proposal to allow districts to use the mid-point of their prior and current year's membership in determining their shared cost budgets. This mid-point provision was applied to all districts regardless of whether their membership figures were of an increasing or decreasing nature.

The following chart represents the manner by which a district would determine its 1975-76 and 1976-77 shared cost. It should be noted that in the example the district has a declining enrollment in 1975-76 and an increasing enrollment in 1976-77.

CHART II

COMPUTATION OF WISCONSIN EXPENDITURE CONTROLS 1975-77

Sample District

1974-75

Shared costs	$4,500,000
Enrollment	4,000
Shared cost/student	$ 1,125

1975-76 Allowable Shared Cost Budget

1974-75 enrollment	4,000
1975-76 enrollment	3,800
1975-76 enrollment for cost control purpose	3,900
1974-75 shared cost/student	$ 1,125
Allowable percentage increase	x 1.095%
1975-76 allowable shared cost/student	$ 1,232
Allowable shared cost/student	$ 1,232
Enrollment for cost control	x 3,900
Total allowable shared cost budget	$4,804,800
1975-76 shared cost	$4,804,800
Actual 1975-76 enrollment	3,800
Actual shared cost/student	$ 1,264

1976-77 Allowable Shared Cost Budget

1975-76 enrollment	3,800
1976-77 enrollment	3,900
1976-77 enrollment for cost control purpose	3,850
1975-76 shared cost/student	$ 1,264
Allowable percentage increase	x 1.095%
1975-76 allowable shared cost/student	$ 1,384
Allowable shared cost/student	$ 1,384
Enrollment for cost control	x 3,850
Total allowable shared cost budget	$5,328,400
1976-77 shared cost	$5,328,400
Actual 1976-77 enrollment	3,900
Actual shared cost/student	$ 1,366

Under present law, this process will be continued annually as districts prepare their budgets. As can be seen, the total percentage shared cost increase for a district is based upon its membership. Only if enrollments are identical over a two year period will the total increase represent 9.5%. Each year that a district experiences an enrollment reduction, it will also realize less than a 9.5% total budget increase from one year to the next.

To provide an outlet for those districts which find it impossible to live within these budget controls, two waiver provisions are contained within the cost control language. First, the state superintendent may increase a district's allowable shared cost budget if it is found that the limitation would:

1. Prevent the development of new or expanded programs for handicapped children.
2. Prevent utilization of a newly constructed school facility.
3. Prevent the implementation of a plan to eliminate racial imbalance.

The second recourse is through the local referendum process. If a school board wishes to exceed the cost limitations it may do so if the voters of the district approve such additional increase at a referendum.

In addition to the appeal and referendum provisions, legislation enacted subsequent to the biennial budget removed from the limitation amounts expended as principal and interest on long-term indebtedness. This alteration alleviated the concern of school districts who felt that a control imposed upon any portion of debt retirement costs would jeopardize their ability to undertake capital improvement projects through the bond market.

Although the impact of the 1975 cost limitation will not be known for some time, data is available which indicates that through the 1975-77 biennium districts will need to reduce spending by approximately $80.7 million from their original estimates. The following chart compares estimated school district shared cost expenditures for 1975-76 and 1976-77 prior to and after the enactment of the controls. The figures entitled "shared costs with control" are those arrived at by determining the allowable shared costs for each of the state's 436 school districts while the "shared costs without control" figures represent original estimates made by each district.

Estimated 1975-76 and 1976-77 Total Shared Costs

	1975-76	1976-77
Shared costs without control	$1,329,224,300	$1,454,317,500
Shared costs with control	1,298,046,500	1,404,731,400
Excluded due to control	$ 31,177,800	$ 49,586,100
% excluded due to control	2.34%	3.41%

In addition, it is anticipated that the reliance on the property tax for support of elementary and secondary education will, although still substantial, not show as much growth in 1975-76 and 1976-77 as was the case in 1974-75. The following table (7) represents Wisconsin's actual

and estimated elementary and secondary school property tax levies for the period 1971-72 through 1976-77.

TABLE 7

Wisconsin Property Tax Levies for School Purposes, 1971-72 through 1976-77

Year	Property Tax Levy	Increase Over Prior Year	Percent Increase
1971-72	$696,030,701	—	—
1972-73	727,749,472	$ 31,718,771	4.56
1973-74	674,959,842	-52,789,630	-7.25
1974-75	789,959,879	115,000,037	17.04
1975-76 (est.)	858,901,284	68,941,405	8.73
1976-77 (est.)	936,493,087	77,591,803	9.03

D. *Other Types of Fiscal Controls*

Several other reform states have adopted tax rate rather than expenditure limitations on their school districts. These limitations are of three general types. One State—New Mexico—requires a mandated tax rate to qualify for school aid and school districts are not permitted to levy any taxes for operational purposes above or below that rate. Utah and Maine have upper limits on school tax rates, requiring all districts to levy a qualifying tax rate for foundation aid, and then setting an upper limit on the additional tax rates which a district may levy to raise additional equalized funding. Florida, North Dakota and Minnesota, on the other hand, have a single ceiling on school tax rates which all or selected districts can exceed by voter override.

Tax rate controls sometimes seem more flexible than expenditure controls. They have been popular with the general public and there has been relatively few voter overrides of such controls in such States as Minnesota and Florida. The extreme inflation in property values throughout the country has been another factor in producing a built-in flexibility to tax rate limits which are usually based on equalized property values. Expenditure controls have been more restrictive in other States though there has been considerable pressure on State budget or tax appeals boards to waive the controls for various reasons. In short, tax controls seem to be simpler to understand and free from some of the statutory complications and rigid ties that expenditure controls have been associated with.

II. The Fiscal Impact of Revenue Controls

Local tax and expenditure controls have been adopted as part of overall school finance reform packages since they assure the taxpaying public that there will be some property tax relief associated with greater State involvement in school financing. Since a large part of the concern in school finance reform stems from the taxpayer inecuities, controls are often necessary to provide school tax relief. The other rationale is that expenditure controls can be used to help bring about a compression in expenditures in rich and poor districts, another key goal for school finance reformers.

How successful have these controls been and what is the likelihood of their continuation in the future? The answer to this question is a mixed one. Expenditure controls have not been immediately successful in reducing the expenditure variation in rich and poor districts, primarily because of the fact the controls between rich and poor communities are not sufficiently wide to permit this to occur. Expenditure controls in both Colorado and California, for example, have not reduced the revenue gaps between rich and poor districts;[3] and rich districts in most States still do have the option of voter override which can result in fiscal disparities occurring again.

Rich districts have not been overly burdened by expenditure controls. Preliminary data in California and Wisconsin indicates that rich districts either had increased revenue limits or took more opportunity to seek waivers on controls than other districts while poor districts, in Kansas, for example, could not derive a major school spending advantage from flexible budget controls allowed under new laws (See Tables 8 and 9).

Controls also have fallen victim to inflation and to the new educational mandates that were also adopted as part of new finance reform laws. While some States—Kansas for example—provided very systematic legislation detailing the grounds for exceptions, continuing pressure has been brought on legislatures to expand the grounds for control waivers. Consequently, and because of the inflationary pressure on school districts, it was not uncommon for most districts who applied to receive some form of waiver under controls.

On the other hand, as the experience in Wisconsin indicates, lack of expenditure controls can result in higher increases in educational outlays as districts seek to make up for previous losses. Moreover, on an interstate basis, it appears that States with relative strong tax or expenditure controls have experienced below average increases in teacher salaries during the years in which new reforms have been in effect. (See Table 10). While districts can sometimes avoid the initial impact of controls, they may discourage general cost increases among all districts within a system.

In short, tax controls, and particularly rollbacks, have been instrumental in producing considerable taxpayer relief as part of school finance reform. Expenditure controls have also slowed down the pace of school cost growth in most instances though this is moderated by the fact that most districts appealing controls to State Tax or Appeal or Budget Control Boards have had them waived. Moreover, expenditure controls have not been overly successful in reducing expenditure differentials in rich and poor districts, a task that may have to be left to the wealth equalization features of a particular State finance plan.

III. Summary Conclusions

- School tax and expenditure controls have been an integral part of new school finance reform legislation. They are designed to bring about local property tax relief and reduce the expenditure variation between rich and poor districts. Only two States—Illinois and Michigan—do not have these controls. It is likely that reform States in the future will develop tax and cost

TABLE 8

CALIFORNIA UNIFIED DISTRICTS HOLDING REVENUE LIMIT ELECTIONS

	All Districts Holding Elections	Lower Wealth Districts Holding Elections	Higher Wealth Districts Holding Elections	Lower Wealth Districts Passing Elections	Higher Wealth Districts Passing Elections
Number of Districts	83	39	44	15	20
Current Revenue Limit Per pupil					
(Median)	1035.54	980.00	1143.28	967.52	1183.12
(Mean)	1113.13	981.82	1229.51	978.71	1254.42
Requested Revenue Limit Increase Per Pupil					
(Median)	120.00	95.55	162.18	82.50	166.00
(Mean)	140.56	98.53	177.81	94.05	172.22
Current Tax Rate					
(Median)	4.25	4.45	4.03	4.47	4.08
(Mean)	4.22	4.56	3.91	4.43	3.80
Estimated Tax Rate Increase to Fund Requested Revenue Limit Increase					
(Median)	.64	.75	.56	.82	.49
(Mean)	.70	.79	.62	.82	.56
Total ADA	1,623,161	604,560	1,018,601	202,226	900,245*

NOTE: Districts are grouped into higher and lower wealth districts according to whether their 1973-74 assessed value per pupil is more or less than the 1973-74 average assessed value per pupil of all unified districts, which was $15,560.

*Including the Los Angeles Unified School District with average daily attendance of 661,702.

Source: Amicus Brief of the Childhood and Government Project in the *Serrano vs. Clowes et. al.* California school finance case (L.A. No. 30,398)

TABLE 9

SELECTED SCHOOL FINANCE CHARACTERISTICS, SELECTED KANSAS DISTRICTS, 1973-75

District	Max Budget Per Pupil		Average Teacher Salary		Average Teacher Salary Increase 1973-75	% Teachers Earning $9,500	
	1972-73	1973-74	1973	1975		1973	1975
Poor Districts							
Elmwood	$ 719	$ 827	$6,671	$ 7,792	16.8%	0%	0%
Eudora	617	670	7,389	8,328	12.7	3	14
Salina	590	700	8,658	10,240	18.3	27	59
Rich Districts							
Moscow	$1895	$1904	$8,013	$9,421	12.4%	13%	53%
Lorraine	1442	1538	8,007	9,069	13.3	10	36
Ulysses	1098	1097	9,194	10,244	11.4	38	71

Source: NCSL computation derived from school finance data collected by the Kansas State Department of Education and the Kansas Education Association

TABLE 10

TEACHER SALARY LEVELS AND INCREASES—1972-75: REFORM AND NON-REFORM STATES

States	Average Teacher Salary 1971-72	1972-73	1973-74	1974-75	% Change '72-'73	% Change '73-'74	% Change '74-'75	% Change '72-'75
U.S. Total	10,213	10,633	11,253	11,950	4.1	5.8	6.2	17.0
Reform States	9,909	10,282	10,772	11,413	3.8	4.8	6.0	15.2
Arizona	10,200	10,461	10,780	11,168	2.6	3.1	3.6	9.5
California	12,330	13,037	13,879	14,715	5.7	6.5	6.2	19.3
Colorado	9,744	10,196	10,596	11,125	4.6	3.9	5.0	14.2
Florida	9,435	9,725	10,503	10,780	3.1	8.0	2.6	14.3
Illinois	10,961	11,645	12,347	13,469	6.2	6.0	9.1	22.9
Iowa	9,933	10,170	10,372	10,598	2.4	2.0	2.2	6.7
Kansas	8,580	8,828	9,231	9,632	2.8	4.6	4.3	12.3
Maine	9,051	9,277	9,547	10,146	2.5	2.9	6.3	12.1
Michigan	12,092	12,400	13,050	13,364	2.6	5.2	2.4	10.5
Minnesota	10,800	10,925	11,684	13,145	1.2	7.0	12.5	21.7
New Mexico	8,512	9,268	9,350	10,200	8.9	0.9	9.1	19.8
North Dakota	7,898	8,230	8,606	9,176	4.9	4.6	6.6	16.9
Utah	8,850	8,966	9,629	10,510	1.3	7.4	9.2	18.8
Wisconsin	10,400	10,812	11,231	11,760	4.0	3.9	4.7	13.1

Source: NEA, *Estimates of School Finance* 1972, 1973, 1974, 1975 (Washington, NEA, 1975)

controls as ways of bringing additional taxpayer relief and redistribution to their finance reform.

- Tax controls have proven somewhat easier to administer than expenditure controls in new reform programs. They are simpler to understand and give the public a working knowledge of the fiscal constraints that a school district must live with. Expenditure controls have proven less durable and have been dropped or revised in several states that have employed them. They also have not successfully reduced expenditure variations between rich and poor districts. Yet, lack of controls has led to higher than normal school cost increases.

- Fiscal controls, particularly those on school district expenditures, may become increasing necessary to copy with the financial ramifications of declining enrollments. Presently, local districts argue that they cannot reduce expenditures commensurately with enrollment declines: yet the general public may expect some measure of fiscal relief from using school costs. Properly structured expenditure controls may be a means of bringing this about.

- Tax and expenditure controls can enhance the equity of school finance plans if they are designed to:

  (1) place more stringent controls on wealthier districts that might otherwise seek waivers from controls or voter overrides at a general election,

  (2) and to encourage poorer districts to full advantage of the maximum fiscal benefit of new finance laws. Designing fiscal limitations to achieve such ends, however, will result in much stronger state controls over local school finance practices than most states now employ. The state will also have to assess the educational impact of tax and expenditure controls on local school districts so as not to disrupt local educational programs and not stand in the way of having local districts develop new programs particularly in the areas of special, and compensatory education.

FOOTNOTES

[1]Patrick J. Lucey, Remarks at first meeting of Governor's Task Force on Educational Financing and Property Tax Reform, January 28, 1972.
[2]Roland M. Rockwell, "The Effect of Cost Controls", *Wisconsin Journal of Public Instruction*, Wisconsin Department of Public Instruction, Autumn, 1974.
[3]Colorado Department of Education, *The Impact of the Public School Finance Act of 1973* (Denver, 1974)

Chapter V

The State Revenue Requirements Of School Finance Reform

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School finance revisions invariably require additional state monies. Whatever the equalization plan adopted by a state, state revenues are usually required to increase the aid to poor districts, sometimes to maintain aid to wealthier districts, and often to finance the increases in categorical educational programs that generally accompany reform. Once having made the decision to revise an educational aid formula, state decision-makers must then raise the money to fund the reform.

Aside from the design of the aid formula used to distribute educational funds, state revenue policy will have a major impact on the fiscal equity of any school finance reform. If a state has a limited revenue base and one that is very unresponsive to economic growth, it is unlikely that it will be able to raise adequate revenues to finance reform without major increases in existing taxes. A state with a broad tax base may undertake this task more easily, yet it also must strive to manage the fiscal growth of a new finance reform deliberately or else it may have to face the onerous task of de-emphasizing other essential parts of its budget. Thus, while many reform states have placed limitations on local school taxing and spending practices, they also have attempted to devise various means of coping with the state fiscal demands of school finance change. They do this to keep education revenue demands from disrupting the state budget and also to keep funding at a high enough level to insure continuing equity in the original finance reform.

What follows is an in-depth look at the state fiscal policies in two reform states—Minnesota and Michigan—along with a brief summary of the revenue and expenditure policies that other states have employed in the wake of school finance reform. Hopefully, then, this chapter will reveal the nature of the major fiscal decisions a state legislator must make when undertaking school finance revisions in his own jurisdiction.

I. Minnesota Finance Reform: The Fiscal Dimensions.

A. *School Finance and Tax Structure Leading to Reform*

In January of 1971 Minnesota's Governor Wendell R. Anderson offered a "Fair School Finance Plan," which addressed the growing imbalance in educational opportunity among school districts due to variation in local property values. Anderson proposed tax relief to accompany the school finance reform through a program of limiting the amount of tax revenue derived from property and shifting the financial support for most educational costs to state funded non-property tax revenues. The proposal was developed during the political debates leading to Anderson's first term, a full eight months before the famous California *Serrano* court decision.

Final implementation of the school aid reform was accomplished through a long and complicated legislative struggle involving a Governor's veto and a special session of the 1971 legislature. The new program of school finance changed both the philosophy and the method of financing to a progressive formula which has proven workable throughout the 1973, 1974 and 1975 legislatures. Changes in the basic equalization aid formula have been relatively minor with the methodology and philosophy remaining intact.

As early as 1915 Minnesota schools were financed with supplemental state aids to promote equalization of district wealth. Limited modifications were achieved throughout the years until a 1956 education study for the legislature identified a growing need for equalization. The philosophy implied in 1956 was that every child, regardless of the level of resources in his district, was entitled to participate equally in the educational program. Further, the philosophy directed that equity also be maintained in the state and local taxes which provided educational revenue.

When the 1957 legislature adopted the first Foundation Aid Program, they gave districts the opportunity to remain on the existing "flat grant aid" which had been in effect for a number of years, but also provided for a new foundation concept whereby revenue was forwarded to each district based upon a per pupil expenditure in average daily attendance (ADA), less a specified local school tax levy on adjusted property valuation.

The adjusted tax base valuation in Minnesota, called the EARC (after the Equalization Aid Review Committee), is established to normalize the assessment procedures of each local assessor. Calculation of the EARC is made by a team consisting of the State Commissioners of Administration, Revenue, and Education; and is derived by ad-

justing the assessed value of property to reflect current market value.

In districts with high property values, the previous flat grant system provided more state aid, but for lower valuation districts the new foundation aid provided greater revenue. Programs of a similar nature were typical of most states in the late 1950's and early 1960's. Local government units were required to levy a specific tax to participate and revenues generated from local tax bases were deducted from a state-controlled expenditure level to determine the state aid allocation.

Various modifications were required through 1957 to 1971, however the dollar gap between actual maintenance costs and the foundation support grew wider until, by 1970-71, the median difference between state aid and maintenance was $332 (Table 1).

In 1970-71 the foundation level for basic maintenance had risen to $404 per pupil unit in average daily attendance (ADA) and the required local tax rate was 20 EARC adjusted mills. Very few districts spent less than the foundation aid of $404, while all districts taxed more than 20 EARC mills. To finance the disparity between costs and state aid reimbursements, districts were forced to depend upon their own property wealth and the willingness of local citizens to pass bond issues. With state aid accounting for only 43 percent of school maintenance costs, a major burden was placed upon the local district.

Local property taxes, on the other hand, were rising at an alarming rate. Gross property taxes had risen at an annual average of 15 percent from 1966 to 1971 and in the three years prior to 1971 net property taxes on farms and homes had risen 74 percent (Figure 1). In that same period taxes on commercial property rose by 56 percent.

There had been an attempt to resolve this property tax dilemma by the 1967 Tax Reform Relief Act. It established a general sales tax for the first time in Minnesota, with a portion of the revenue specifically designated for per

TABLE 1

COMPARISON OF FOUNDATION AID AND MEDIAN MAINTENANCE COSTS IN MINNESOTA HIGH SCHOOL DISTRICTS 1963-1974

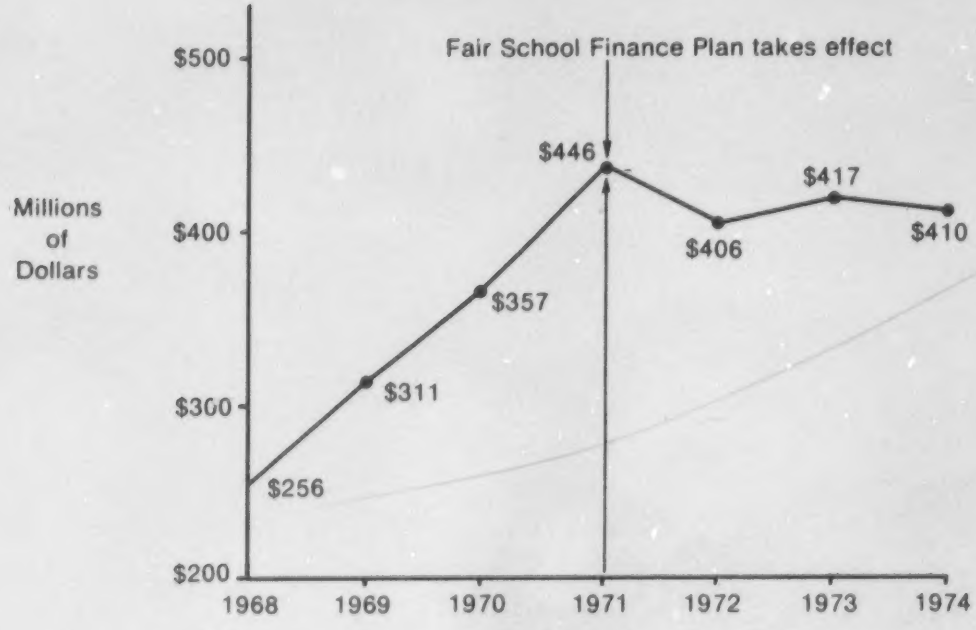
School Year	Foundation Aid	Maintenance Costs	Difference
63-64	$309	$359	$ 50
64-65	315	378	63
65-66	321	407	86
66-67	324	454	130
67-68	345	483	138
68-69	355	546	191
69-70	365	604	239
70-71	404	736	332
*71-72	600	663	63
72-73	750	804	54
73-74	788	823	45

*First year of School Aid Reform

Source: Minnesota Legislature—1975

FIGURE 1

MINNESOTA PROPERTY TAXES ON HOMES AND FARMS—1968-1974



Source: Minnesota Legislature—1975

capita payments to school districts. The act also substantially reduced local taxation of business personal property. School districts benefited by the 1967 tax law by approximately $40 million each year to compensate for the shift in property taxes. Another feature of the 1967 tax reform was the enactment of a homestead tax credit where the state paid 35 percent of the private real estate tax up to a $250 maximum.

The 1967 reform attempted to reduce the property tax burden for local citizens, but did not address the growing disparity in the method of financing education. While the homestead credit did pay a portion of individual real estate taxes, it did not equalize the vast differences in local millage required to generate average maintenance costs in school districts. The tax payments were intended to reduce the burden of local property taxes, but the practical effect of the law was to increase local taxes. School boards were not constrained by local levy limits and therefore the 35 percent homestead credit was used as justification for levying additional millage. School districts used the tax relief as a "selling point" for increased levies by reasoning that a dollar levied would only cost the taxpayers a net 65 cents. The years following implementation of the homestead credit saw property taxes increase at the sharpest level in Minnesota's history.

B. *Pressure for School Finance Reform*

Pressure for school finance reform was applied by many citizen groups throughout the late 1960's and early 1970's. Public discontent was shown in many areas with school districts taking the brunt of criticism. Higher salaries and rising educational costs were translated into increased local mill levies and, consequently, local opposition focused on school finance. Board meetings were jammed with citizens questioning budget items and school district officials were experiencing growing difficulty in winning local support.

Numerous reports by the state education department, other organizations, and a report by the respected Citizens League entitled *New Formulas for Revenue Sharing in Minnesota, 1970,* outlined different methods of distributing revenues for schools. The Citizens League report provided the forum for the 1970 gubernatorial debates between then Democratic Farmer Labor Senator Wendell Anderson and Republican Attorney General Douglas Head. The major issues of the campaign were the tax-related disparities, with the education lobby maintaining a rather low profile on the delicate school finance issues. Anderson won the election by a significant majority and proceeded to offer his fair school finance plan which required a substantial tax increase to the 1971 legislature.

Nationally, the courts had not begun to address the school financing question at the time Minnesota began this reform. Anderson offered his reforms in January of 1971, while the *Serrano v. Priest* case of California was not decided until August of 1971. Today, of course, the *Serrano* decision has influenced the reforms of many states that have attempted to meet the equal protection clause of the Fourteenth Amendment to the U.S. Constitution.

However, Minnesota did have one court case, *Van Dusartz v. Hatfield,* which influenced the passage of the 1971 reform. In that case a suit was brought against state and local officials on the grounds that educational resources in Minnesota were allocated in direct proportion to the wealth of individual school districts. Plaintiffs alleged that the educational system denied their children an equal educational opportunity and also required them to pay higher property tax rates than those in wealthy districts to achieve the same pupil expenditure level. U.S. District Court Judge Miles Lord denied the defendant's motion to dismiss and held that a system which made spending per pupil a function of the school district's wealth violated the equal protection clause of the Fourteenth Amendment to the U.S. Constitution.

Judge Lord's decision was rendered in October 1971, one month later than *Serrano,* and one month before the final passage of the Minnesota Omnibus Tax Bill which provided the vehicle to equalize educational expenditures in Minnesota. Judge Lord retained jurisdiction of the case pending action of the legislature and the plaintiffs dismissed the case after the Minnesota bill was enacted.

C. *Elements of the 1971 School Finance Reform.*

The general philosophy of the 1971 school finance reform was to provide property tax relief through a policy of limiting the amount of revenue derived from property taxes and meeting most of the costs of education from state non-property sources. In effect, this would shift the burden of state support from the 1970-71 level of 43 percent to 70 percent in 1972-73.

A transitional foundation aid program was provided for in 1971-72, with $600 per pupil unit minus 30 mills (.030) times the 1970 EARC adjusted valuation. The new law related all taxes to the foundation rate of 30 mills on the most current EARC adjusted valuation.

After the 1971-72 transition year the foundation aid for 1973-74 was established at $750 per pupil unit minus 30 EARC adjusted mills. An example of the basic aid for school districts with 1000 pupil units and a $10,000,000 adjusted valuation would be computed:

$$\begin{bmatrix}\text{State Foundation Aid}\\ \$750\end{bmatrix} \times \begin{bmatrix}\text{Pupil Units}\\ 1000\end{bmatrix} - \begin{bmatrix}\text{Adjusted millage}\\ .030\end{bmatrix} \times \begin{bmatrix}\text{Adjusted Valuation}\\ \$10{,}000{,}000\end{bmatrix} = \text{State Aid}$$

$$\$750{,}000 \quad - \quad \$300{,}000 \quad = \$450{,}000$$

The 1971 school reform also changed the method of computing attendance in schools to average daily membership (ADM). Previously, schools were required to report average daily attendance (ADA) in order to receive state aids, which penalized districts which, for various reasons, had higher levels of absences. Pupil units in the 1971 reform were computed by allowing one-half (.5) unit for kindergarten, 1.0 unit in elementary grades 1-6, and 1.4 units in secondary grades 7-12.

One key equalizing provision of the 1971 reform was the establishment of a statewide system of school district levy limitations. Districts were prohibited from increasing their local levy beyond 30 EARC adjusted mills, though high expenditure districts could have higher school tax rates to prevent cutting back on school services. Minnesota's philosophy was that equalization could not be

achieved without proper levy limitations to control total school resources. However, many school districts viewed the limiting of levies as a potential block for schools to receive their fair share of total city taxes. There had been no levy controls before 1971 and districts could authorize higher taxes by a local decision, whereas the reform did control the levy and required a referendum to increase spending.

Additionally, large urban schools claimed that a city's school finance obligation depended upon receiving aid for special problems unique to the urban systems. They claimed that 56 percent of the students from families which were receiving aid to dependent children (AFDC) were located in Minneapolis, St. Paul, and Duluth, and thus an extra aid should be granted. The legislature allowed an extra one-half (.5) pupil unit to be added for each AFDC student, which amounted to $375 in extra aid. This provision created a net cost to the state of $15,975,000 in 1971-72 and $20,303,000 in 1972-73.

Rural opposition to the urban-oriented AFDC provision was strong and emotional even though the new system would bring benefits to the depressed low valuation rural counties. Most rural districts had less than 3 percent of their enrollment receiving AFDC money and, therefore, the districts would gain very little additional aid. To balance rural interests in the reform, the legislature mandated the state to pay the first 8⅓ EARC adjusted mills on agricultural land. This provision had the effect of lowering the total tax burden on rural districts and created a net cost to the state of $15,835,000 in 1971-72 and $17,290,000 in 1972-73.

Minnesota's equalization formula is based on a theoretical average expenditure per pupil unit which in the statutes is called a "typical district." Very few districts report per pupil expenditures at the "typical" or average foundation amount. In 1970-71, for example, the highest local adjusted maintenance cost level was $1,072, with the lowest expenditure level at $379 per pupil unit—a range of $693. A dramatic example of the tax disparity was the number of adjusted (EARC) mills necessary to produce the theoretical average $664 maintenance expenditure. The highest valuation district would need to levy only 16.1 EARC mills to raise the $664, while the lowest valuation district would need to tax 62.1 EARC mills to generate the "typical expenditure." Clearly, differences in local property values were creating an unequal tax and educational situation.

While putting more aid into poor districts, the 1971 reform allowed the high expenditure districts to "grandfather" the dollar per pupil amount above the typical district in a "grandfather levy." For example, if the district was spending $800 per pupil when the state foundation level was $750, they would be allowed a $50 per pupil local grandfather levy. Consistant with the levy limit philosophy, they have not been allowed to increase their grandfather levy and are only allowed average statewide foundation aid increases.

For those districts spending less than the typical foundation aid level, the 1973 legislature has developed a "catch-up" provision designed to help "low spenders" move toward the state average. This clause accelerates the rate of growth in resources by allowing a fractional increase over six years which is larger than the statewide increase. Hopefully, in six years, the disparity in spending will be less and low spending districts will have clustered around the state foundation aid level, with high spending districts restrained by levy limits (See Table 2).

TABLE 2

COMPARISON OF FORMULA AMOUNT USING THE FRACTIONAL "CATCHUP PROVISION"

Year	Low Spending District "without catchup"	Formula Amount State Average	Low Spending District "with catchup"	Additional $
1972-73	$450.00	$750.00	$450.00	
1973-74	488.00	788.00	506.00	+18
1974-75	525.00	825.00	609.00	+84
1975-76	600.00	900.00	754.00	+154
1976-77	660.00	960.00	891.00	+231

Source: Minnesota Legislature—1975

Politically, the "catch-up" provision has been advantageous, with about half the districts receiving aid, and the cost to the state has stablizied at about $10 million annually.

If for any reason a district wants more money, Minnesota law allows them to conduct a local referendum. To date, 40 school districts have passed a school tax override referendum.

D. *State Revenue Requirements for Educational Reform*

State Commitment for Education. Elementary and secondary education is one of the largest enterprises in Minnesota, involving 25 percent of the state's population and 6 percent of the work force. The costs of supporting a large and high quality educational system are staggering. The biennial appropriation to elementary and secondary education in 1975 amounted to $1.7 billion, which represented approximately 32 percent of the state's two-year budget. In addition, non-direct aids to school districts accounted for another $1.3 billion primarily in the form of property tax assistance to local districts.

Generating the revenue for education is a major task for the legislature. Yet, the net revenue required as a result of the 1971 reform, many contend, is probably less than that required by a continuation of the former method of financing. The Governor's plan was to call for an estimated $390 million in new state money for education for the 1971 biennium. The Governor emphasized that the amount was no more than expected cost increases under the old plan. With 80 percent of the new money coming from increased personal and corporate income taxes, it could be argued that the $390 million was in a very real sense property tax relief. Additional taxes in sales, cigarettes and liquor were also used to shift the burden away from local property sources. Property taxes were thus reduced by an average of 11.5 percent with a major proportion of the reduction coming from the limiting of local

school levies and, to a lesser degree, from the relief of municipal levies. Shifting the tax burden away from a regressive and toward a progressive source also contains a significant redistribution in tax burden from lower to higher income families.

In Minnesota the actual expenditures for elementary and secondary education have increased dramatically over the last ten years. Schools have been under the same high inflationary pressures as other institutions; for example, the price of a gallon of fuel oil went from 14 cents in August 1973 to 32 cents in April 1974. Similar increases in transportation, maintenance, construction and salaries have increased all governmental expenditures.

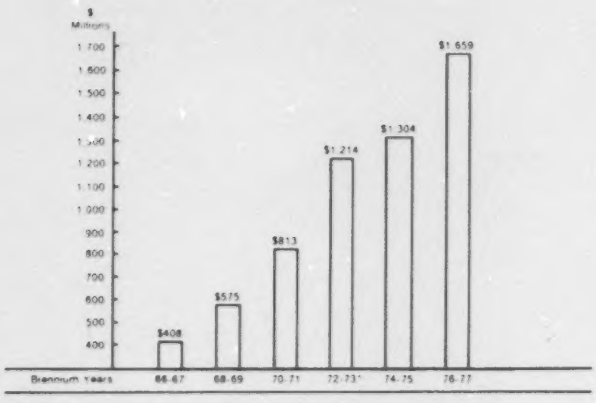
Table 3 shows the dollar expenditures for elementary and secondary education over a ten-year period, 1967 to 1977. As one can note, the state expenditures take a dramatic increase in 1971 as a result of the reform; however, the net cost to the state did not take the same increase. Education has always occupied a certain percentage of the state's budget—historically, around 58 percent. It is interesting to note that education still occupies the same relative position in the budget as it did prior to the reform; so for statewide fiscal management purposes, the educational reform did not have overwhelming implications. (See Table 4).

Required Administrative Procedures Due to Reform. Minnesota's State Department of Education calculates and distributes all school aids to the state's 436 districts. Reform of the aid distribution process required the department to add additional staff and significantly modify their procedures. Costs of the new staff were estimated at $100,000, which is relatively insignificant when one considers the financing of the State Department of Education.

Certain duties were transferred between the State Tax (Revenue) Department and Education. Levies, including levy limitations, are now computed for each of the districts based upon EARC valuations. Overall, the reform of 1971 did not present a problem in administration; functions of departments were adjusted but this did not present a large cost to the state—only a different procedure.

TABLE 3

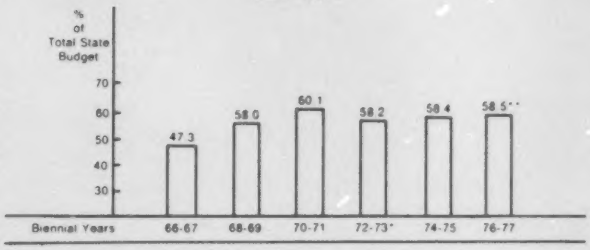
MINNESOTA
DIRECT ELEMENTARY AND SECONDARY AIDS
IN $ MILLIONS



*First year of School Aid Reform
Source: Minnesota Legislature, 1975

TABLE 4

PERCENT OF TOTAL STATE BUDGET ALLOCATED TO ELEMENTARY AND SECONDARY EDUCATION, 1966-1977



*First year of school finance reform
**Estimate
Source: Minnesota Legislature—1975

Local expenses may have been slightly higher. The education department holds annual workshops to train local business managers in new procedures. The 1971 law required special meetings at regional locations to explain the new system.

Administrative Benefits of Reform. There are a number of administrative benefits of the education reform which have proven noteworthy. First is the ability to control educational expenditures and manage the revenue from one single agency. Levy and spending limits require the district to "fit" their program into the fiscal framework outlined by the legislature. Prior to levy limitations a school board could establish its program, add its state aid allocation and levy the amount necessary to generate the needed revenue. Today, however, the districts know their expenditure limits and are forced to make a local priority decision about new program changes. Consequently, boards are more involved in educational policy-making and are addressing the questions of educational quality.

Another administrative benefit of recent legislation is the possibility for developing a sophisticated accounting system. Minnesota will have an operational Uniform Financial Accounting and Reporting System in 1978. This system will provide a means to report expenditures by school, level of institution, and program category. It will allow the legislature and State Department total flexibility in design of new formula adjustments.

E. *Revenue Requirements to Maintain Equalization*

Policy Issues and Costs. The basic equalization formula was established in 1971, but recent completion of the 1975 Legislative Session has given the lawmakers their third opportunity to "fine-tune" the system. Some changes have taken place and are now a part of the formula; others have been tried and discontinued; and still other provisions are being developed for future implementation. Legislative involvement has increased which is a positive by-product of reform and the understanding of school finance revenue demands have improved.

Declining Enrollment. Declining enrollment ranks as a major problem in pupil-generated school finance formu-

TABLE 5

REVENUE REQUIRED FOR DECLINING ENROLLMENT SUPPORT

Year	
1971-72	$ 1,000,000
1972-73	4,560,000
1973-74	7,097,000
1974-75	7,200,000
1975-76	8,235,000*
1976-77	10,378,000*

*Estimates
Source: Minnesota State Department of Education—1975

las. Minnesota, like many other states, must deal with the fact that enrollment has peaked and will soon not be as large as in the early 1970's. Minnesota spends a considerable amount of money for school districts which are experiencing a decline in enrollment. The law permits a district to count 60 percent of the actual decline as still in attendance, for example, if enrollment dropped from 1000 to 950, the district could certify 980 units for aid purposes.

Revenue required for this provision is justified on the basis that school costs do not decrease in proportion to a loss in enrollment. The state cost has steadily increased from 1971 and will continue until enrollment stabilizes sometime in the 1980's (see Table 5).

Aid to Families with Dependent Children. Educational disadvantagement is a much debated subject in Minnesota's school finance formula. Formula aid for AFDC (Aid to Families with Dependent Children) students is provided to districts to assist with educational overburden created by poverty, racial, and social characteristics. The number of AFDC students is used as an index to the degree of "overburden" in each district and aid is distributed accordingly. In 1971 the legislature allowed each eligible unit to account for an extra one-half (.5) pupil unit and in 1973 allowed an additional weighting if the percent of AFDC students was over 5 percent. This "impact percent" was adjusted during the 1975 Legislative Session after considerable controversy and now each AFDC unit from a district where the percent AFDC is over eleven can qualify for an extra 1.1 units. Ideally, states that consider this aid should develop a total "impact graduated" schedule and eliminate the automatic one-half (.5) unit given to each AFDC student. Payment of this aid, however, creates a rural-urban conflict because of the typically low percentage of AFDC students in the rural districts. Revenues for AFDC have grown into a large expenditure (Table 6).

Fast Growth Aid. Shifts in population distribution due to urban growth have increased enrollment in some districts causing pressure for new facilities, which in turn adds new start-up costs. At the same time, new materials costs and national economic trends have accelerated the costs of construction. To counter these costs the 1973 legislature modified the formula and allowed those districts growing at a rate of four percent to qualify for an extra weighting (.25 units) for each student above the four percent increase. The 1974 legislature dropped the qualifer to three percent and the 1975 legislature dropped it to two

TABLE 6

REVENUE REQUIRED FOR AFDC PAYMENTS

	Total	Minneapolis & St. Paul
1971-72	$15,975,000	$ 7,026,600
1972-73	20,303,000	8,624,250
1973-74	27,500,000	14,355,152
1974-75	28,794,000	15,389,632
1975-76	36,500,000*	25,448,490*
1976-77	39,200,000*	27,145,056*

1975 Pupil Weighting AFDC Formula

% AFDC	Weight
0-5	.5
5-6	.5
6-7	.6
7-8	.7
8-9	.8
9-10	.9
10-11	1.0
11+	1.1

*Estimates
Source: Minnesota State Department of Education—1975

percent and developed a graduated payment schedule up to .5 extra units for five percent growth. Only a small number of districts qualify for this aid and the total payments will stablize as enrollments decline (Table 7).

Declining enrollment, AFDC and fast growth payments have all been instituted to "fine-tune" the basic formula of 1971. They allow districts to count extra pupil units and add to their grand total for aid payments. Other types of aid are "categorically" allocated outside the basic formula including transportation, special education, secondary vocational, post-secondary vocational and adult vocational education.

Revenues for these categorical aids have generally been provided on a reimbursement scheme where the district reports costs and receives aid in the following year. The basic aid formula, on the other hand, is a "current" system with aids paid directly in the year reported. Minnesota has found that to the extent possible, it is advantageous to place as many programs on a "current funding basis" as possible. To switch over, the legislature has appropriated just enough money in a categorical aid fund

TABLE 7

REVENUE REQUIRED FOR "FAST GROWTH" AID

Year	Aid	Number of Districts Qualifying
1972-73	no payments	—
1973-74	$1,601,500	66
1974-75	1,619,338	63
1975-76	2,775,947*	58
1976-77	2,739,854*	37

*Estimates
Source: Minnesota State Department of Education—1975

TABLE 8

REVENUE REQUIREMENTS FOR CATEGORICAL AIDS "OUTSIDE THE BASIC FORMULA"

Year	Transportation	Special Education	Secondary Vocational	Post Secondary Vocational
1971-72	$25,200,000	$18,633,000	—	$27,942,000
1972-73	33,300,000	21,233,000	—	34,900,000
1973-74	38,000,000	25,700,000	$10,000,000	30,100,000
1974-75	51,000,000	27,700,000	10,400,000	34,100,000
1975-76	62,310,000	38,600,000	13,700,000	53,500,000
1976-77	67,173,000	46,750,000	16,300,000	74,600,000

Source: Appropriations—Laws: 1971,73,75

to cover the requests for reimbursement of the previous year and then committed themselves to paying the next year on a current system. Minnesota has converted the transportation and post-secondary vocational funding to a current system and will be converting special education in 1976 and secondary vocational in 1977. The revenue required to pay on a current system is no more than on reimbursement, and, it gives the program a faster response time to new developments. For example, vocational aid paid on a reimbursement one-year delay did not grant much flexibility in responding to industry for new training programs in machine operation. The state attempted to meet this demand by having a "start-up" fund, but all 33 vocational-technical centers were in competition for the appropriation; whereas, the current formula allows them to report new enrollments and costs and receive payments in the same year.

School transportation demands a large amount of state revenue. The 1975 legislature placed all school districts on an equalization formula where the state pays all authorized transportation expenditures minus one local EARC mill. Expenditures are allowed to increase a certain percentage each year over an established base year. Authorized expenditures do not include the cost of field trips or extra-curricular activities which must be financed from general operating funds. (Table 8).

Additional School-Related Tax Revenue Demands. Minnesota has developed a series of tax reforms that have a secondary effect on education finance but a direct impact on the state's ability to provide revenue for other programs. Among these are a homestead credit, senior citizens' tax freeze, local government assistance, circuit breaker property tax relief, agricultural tax relief, and welfare relief.

Homestead tax credits were established in 1967 to help relieve the tax burden on homeowners by requiring the state to pay a percentage of individual property taxes. At the present time, this credit consists of 45 percent of the homestead taxes up to a maximum of $325. The impact of the homestead credit has been significant. Table 10 shows the state revenue used to reduce local property taxes.

TABLE 9

REVENUE REQUIRED FOR SENIOR CITIZENS PROPERTY TAX FREEZE

1974 — $ 471,000
1975 — $7,000,000
1976 — incorporated into circuit breaker (Table 8)

Source: Minnesota Legislature—1975

TABLE 10

REVENUE REQUIRED FOR HOMESTEAD PROPERTY TAX CREDIT

Calendar Year	
1968	$ 78,769,000
1969	95,305,000
1970	108,055,000
1971	127,596,000
1972	117,086,000
1973	122,753,000
1974	189,373,000
1975	205,000,000*
1976	320,000,000**

*Estimate
**1976 includes: homestead
circuit breaker
renter
senior tax freeze

Source: Minnesota Legislature—1975

In addition, the state has a classification system for property tax purposes which attempts to relieve the regressiveness of the tax on homesteads. By using a property classification system with a homestead credit the taxes on a $25,000 home are more than double the taxes on a $15,000 home; the taxes on a $35,000 home are almost double the taxes on a $25,000 home; and the taxes on a $45,000 home are nearly triple the taxes on a $25,000 home.

The circuit breaker program combines with the property tax adjustment program designed to reduce local taxes. Beginning in 1976, the circuit breaker will provide graduated state income tax credits to homeowners for property taxes which are in excess of a certain percentage of their household income. Circuit breaker payments are applied after the homestead credit is taken; and amount to $475 for lowest incomes. ($675 for senior citizens). Development of the homestead credit is consistent with Minnesota's philosophy to de-emphasize the property tax. Payments estimated for the circuit breaker tax relief

in 1976 will amount to $60 million in addition to the homestead credit.

Senior citizens, most of whom are on fixed or limited incomes, have benefited from Minnesota's senior citizens' property tax freeze. Starting in 1973, the taxes for senior citizens were frozen at the level of their 65th birthday, but the 1975 legislature limited the freeze credit for those persons whose income exceeds $10,000. The credit remains for those persons earning less than $10,000, but is gradually phased out up to a $20,000 annual income. Payments to senior citizens (Table 9) have cost the state a large amount of money; however, senior citizens can enjoy a better economic position due to the program. There is no direct effect on school district revenue although some officials believe that the senior citizen tax freeze makes bond issues easier to pass.

In 1971 the Omnibus Tax Bill changed the agricultural differential program. Prior to 1971, agricultural property was taxed at a rate that was 8½ mills lower than other property for school purposes. This difference was absorbed at the local level. The effect of the differential was to discriminate against homes and businesses in districts which have a large amount of agricultural property. The 1971 law retained the differential, but provided for state financing of the cost.

The 1975 legislature raised the 8 1/3 mill reduction to 10 mills for non-homestead qualifying property; and 12 mills for agricultural homestead property. The state pays the county auditor for the amount of revenue lost in the county as a result of the mill reduction (Table 11), and he distributes money to local schools.

TABLE 11

REVENUE REQUIRED FOR AGRICULTURAL LAND TAX DIFFERENTIAL RATIO AID

Calendar Year	
1972	$15,835,000
1973	17,290,000
1974	17,474,000
1975	17,795,000
1976	24,000,000*

*Estimate
Source: Minnesota Legislature—1975

Beginning January 1, 1976, the state will increase its share of medical assistance costs from 50 to 90 percent of the amount not federally funded and will assume 90 percent of the medical costs for indigents, a cost now totally borne by local property taxes. The medical assistance increase is expected to cost about $70 million for three-quarters of the 1975 biennium and the indigents costs will total about $30 million for the same period. This $100 million state expenditure represents a significant expenditure of revenue and shifts the burden from property sources to more progressive income and sales taxes.

Local government assistance, in the form of increased dollar state aid and better distribution of revenues, has been increased in the 1975 legislature. The 1967 legislature provided direct local aid payments for exempt property reimbursements and sales tax per capita aids. These aids were replaced by a local aid revenue-sharing formula in 1971. In 1976 this formula will provide $42 per capita to each county and $45 per capita in 1977. Distribution of these aids is on an equalizing base which is different than the school aid formula. Assistance to local government also demands a large source of state revenue (Table 12).

TABLE 12

REVENUE REQUIRED FOR LOCAL GOVERNMENT AIDS

Calendar Year	
1972	$98,800,000
1973	114,000,000
1974	136,000,000
1975	139,000,000
1976	160,000,000
1977	171,000,000

Source: Minnesota Legislature—1975

F. *Conclusion*

Throughout the last ten years Minnesota has been attempting to use its state revenue system to accomplish major social goals. Education has achieved an approximately high priority in the overall revenue distribution, commanding approximately 58 percent of the overall state budget. Consequently, the delicate relationship to the taxing structure has placed education financing in the spotlight as a major requirement of revenue.

Major educational reforms of 1971 focused on three major goals: (1) eliminating unequal treatment of property taxpayers in different school districts by equalizing school property tax burdens; (2) achieving equalization of educational opportunity by moving toward equal spending in all Minnesota districts; and, (3) lowering the total level of property taxes by transferring 70 percent of school operating costs to state revenue.

The regressiveness of property taxes as a source of state revenues caused legislators to look toward other sources for school finance. Equalized property wealth may provide an acceptable method of distributing state resources to education, but does not provide an acceptable source of revenue. The geographic distribution of property wealth also bears no relationship to the need for public revenues. Some school districts have large amounts of property wealth tax base, while others are, by comparison, poor. By utilizing an adjusted property value base (EARC) and assessing thirty local mills for education, the state also takes advantage of the inflation which increases local property values. In the last five years the state EARC value has risen by 39 percent from $10.2 billion to $14.2 billion (*Table 13*). Therefore, the local support of education has increased to the point in 1976 when the required local levy can drop one mill to 29 EARC mills.

Income and sales taxes with exemptions for food and drug purchases can provide a better and more progressive method of extracting revenues for state purposes. Minnesota has attempted to reduce even further the regressiveness of sales taxes by exempting necessities such as food, clothing, and medicine. The shift in tax instruments also has meant virtual stabilization of property and in-

TABLE 13

GROWTH OF MINNESOTA ADJUSTED PROPERTY VALUATION (EARC)

1970-71	$10,177,524,254
1971-72	10,797,921,332
1972-73	11,683,712,694
1973-74	12,827,300,464
1974-75	14,151,742,751

Source: Minnesota Legislature—1975

come taxes for middle and lower income families between 1971 and 1973 (See Table 14).

State and federal courts have not mandated equal dollar expenditures in all school districts. Rather, they have mandated a policy of fiscal neutrality to reduce tax disparity. Minnesota has attempted to meet that challenge by a shift in sources of revenue. Property taxes in 1970 accounted for 44 percent of total state and local taxes; whereas, today, due to the reforms, they provide only 34 percent of total revenue. Likewise, a shift in income tax from 23 percent to 32 percent and sales tax from 25 to 28 percent in the same period has increased the equity of the overall tax system.

Minnesota has attempted to combine tax neutrality with fiscal equality in its school finance policies. Development of levy limits has successfully implemented tax neutrality, while the "catch-up" provision for low expenditure districts has moved toward fiscal equality. This represents an effort to go beyond the *Serrano* mandate. Conclusive data are not yet available but we believe that variations in district spending will be reduced through the "catch-up" provisions. Without strict control over the total educational expenditure, including levy limitations, it is impossible to implement an equalization formula. For example, in 1970-71 only slightly over one fourth of the districts had a return on a mill of tax effort which was within 10 percent of the median of that year. In 1973-74 the number of districts within 10 percent of the median increased to 65.6 percent.

TABLE 14

AVERAGE SCHOOL AND STATE TAXES PAID BY MINNESOTA HOUSEHOLDS*

Income between $10,000 and $11,000 and home valued at $21,000

	1971	1972	1973
Average Income Tax $10,000-$11,000	$384	$435	$435
Average Property Tax $21,000 home	$489	$425	$404

*These estimates are based on average rates; specific examples may vary around the state

Source: Minnesota Legislature—1975

Minnesota's reform experience indicates that the revenues required for school finance reform can be generated very efficiently by the state system of taxes. Coupled with the fact that local property taxation has proven an unacceptable method of generating revenue, the state now provides 70 percent of revenues, while exercising relatively little supervision over local decisions.

However, separating the duties of raising and spending revenue may have promoted a local insensitivity toward state revenue demands. By assuming leadership in establishing expenditure levels, the legislature has taken the brunt of cricicism from educators about lack of funds. There has been an apparent shift in lobby activity away from local school boards, who held the key to more revenue, to the state legislature. Prior to 1971, local educational decisions were made without much regard for their impact on other public expenditures—now education must defend its priority with highways, welfare, crime, environment and all state functions. While the educators enjoy a guaranteed single purpose appropriation, the new reform has placed control of revenue directly in the hands of state political decision-makers who must ultimately take the credit or blame for Minnesota school finance policies.

II. The Revenue Demands of District Power Equalization: The Case of Michigan

The goal of school finance reform in Michigan has been to provide equal dollars for equal local tax effort and to eliminate fiscal disparities resulting from differing tax bases. A secondary goal has been to reduce the expenditure gap between high and low spending districts.

A. *The Basic Formula Revision.*

Michigan's school finance reform—"The Bursley Act"—took effect in 1973-74 and provided for a three-year continuing appropriation. The basic equalizing provision was a formula distributing state monies on the basis of a guarantee of equal dollars for equal school millage levied in a local district.

The formula guaranteed $38.00 for each student for each mill up to 22 mills for 1973-74, $39.00 guarantee up to 25 mills was set for 1974-75 and $40.00 guarantee with no limit on the amount of reimbursable millage for 1975-76. No "recapture" provision was included. Districts with local revenue in excess of the established levels were not required to pay the state the amount of excess. Only three percent of the districts were above the 1973-74 guarantee level. Therefore, the recapture provision would have been insignificant in terms of money repaid to the state. The fact that such a small number of districts fell in the "recapture" range illustrates how dramatic the "levelling up" process was intended to be during the first year of the reform.

The new finance formula provides for major reduction in expenditure disparities caused by variations in local property tax wealth. Districts levying 22 mills in 1972-73 spent $725.00 per pupil on a tax base of $10,000 and $884.00 per pupil on a tax base of $40,000 per pupil. The expenditure differences between these two rich and poor

TABLE 15

EVOLUTION OF IMPACT OF MICHIGAN STATE AID FORMULA

Year	District State Equalized Valuation (SEV) Per Pupil	20 Mill Districts	Difference Between High & Low SEV	22 Mill Districts	Difference Between High & Low SEV	25 Mill Districts	Difference Between High & Low SEV	27 Mill Districts	Difference Between High & Low SEV	30 Mill Districts	Difference Between High & Low SEV
1969-70	$10,000	$549.00		$569.00		$ 599.00		$ 619.00		$ 649.00	
	20,000	628.00		688.00		728.00		768.00		828.00	
	30,000	739.00		798.00		888.00		948.00		1,038.00	
	40,000	848.00	$299.00	928.00	$359.00	1,048.00	$449.00	1,128.00	$509.00	1,248.00	$599.00
1972-73	$10,000	$715.00		$725.00		$ 765.00		$ 785.00		$ 815.00	
	20,000	724.00		764.00		824.00		864.00		924.00	
	30,000	764.00		824.00		914.00		974.00		1,064.00	
	40,000	804.00	$ 89.00	884.00	$159.00	1,004.00	$239.00	1,084.00	$299.00	1,204.00	$389.00
1973-74	$10,000	$760.00		$836.00		$ 866.00		$ 886.00		$ 916.00	
	20,000	760.00		836.00		896.00		936.00		996.00	
	30,000	760.00		836.00		926.00		986.00		1,076.00	
	40,000	800.00	$ 40.00	880.00	$ 44.00	1,000.00	$134.00	1,080.00	$194.00	1,200.00	$284.00
1974-75	$10,000	$780.00		$858.00		$ 975.00		$ 995.00		$1,025.00	
	20,000	780.00		858.00		975.00		1,015.00		1,075.00	
	30,000	780.00		858.00		975.00		1,035.00		1,125.00	
	40,000	800.00	$ 20.00	880.00	$ 22.00	1,000.00	$ 25.00	1,080.00	$ 85.00	1,200.00	$175.00

Source: Dr. James Phelps, "School Finance Reform in Michigan: Two-Year Results, July 1975.

districts was reduced to only $22.00 per pupil in 1974-75. (See Table 15).

Formula monies accounted for $727 million in 1972-73. This figure rose to $767 million in 1973-74, even though membership dropped from 2,193,270 to 2,160,485. In 1974-75 membership continued to decline to 2,139,720 while formula aid jumped again by $39 million to $806 million. The first two years of the reform had increased the formula $80 million. This 11% increase in formula aid was accompanied by an $80 million increase in state education aid outside the basic formula program.

Two major elements account for this steady increase of school finance reform revenues. First, finance reform was phased in over a period of three or four years. Second, Michigan was already providing close to 50% of the cost of education. Thus, the goal was not to markedly increase overall support but to provide for greater fiscal redistribution under the formula.

The third year of the new school aid formula has been changed to a progressive guarantee of $42.40 for the first 20 mills and $38.25 for the next 7 mills. The higher guarantee level for the first 20 mills was adopted to satisfy those districts that demanded greater expenditures without a concurrent raise in millage. Raising the number of reimbursable mills on the other hand, has extended the initial concept of equal-effort, equal-reward embodied in the "Bursley Act". The "Bursley Act" also equalized capital outlay and debt service costs, acknowledging the fact that if full equalization was to be achieved, the cost of the buildings and facilities needed to be included.

B. *Other School Finance Programs Outside the Formula*

Another equalizing provision was a categorical grant for "municipal overburden". This has been justified on the theory that some cities demand extra services resulting in high non-educational taxes which diminish the ability of those districts to raise millage for school purposes. The equalizing effects of this grant seem questionable when one finds that 23 of the 32 districts receiving such aid levied above the statewide average in school millage. However, municipal overburden grants have become an established part of the formula and the appropriation has increased from $24 million in 1973-74 to $27 million in 1975-76. Throughout its history, however, the municipal overburden grant has never been fully funded.

In addition to these equalizing provisions in the original legislation, the state has agreed to equalize, on a limited basis, millage levied both for vocational and special education programs. $90 million will be spent for special educational aid and $20 million for vocational education in 1974-75.

Another major school finance revenue demand on the state has been school retirement costs. The state now pays the employer's share of the cost of retirement benefits. This will become a major finance demand in the future due to the demands for higher teacher salaries and fringes by the teaching profession and since seventy-two percent of operating school budgets are for teachers' salaries. Retirement outlays reached $256.3 million in 1974-75.

Categorical grants are yet another significant part of

the state education budget. This aid is generally seen as non-equalizing, and it includes monies for vocational education, correction pupils, compensatory education, reading support, neighborhood education center, intermediate school districts, experimental projects, problem juvenile programs, special education, day care training programs, transportation, media centers, cooperative programs. The categorical grants encourage selected special programs or services which the State Department of Education and the legislature deem important.

Categorical money is designed to support experimental projects in a few selected districts. If such projects are successful and deemed necessary for all children, school districts can then fold them into the basic program and formula monies would cover the costs. If the program on evaluation proved only marginally successful or was limited in scope as far as the number of students that would benefit, the program would be dropped from the categoricals and districts would pick it up only if they so chose to make it a priority.

Another justification for categorical monies is the need to establish programs that local districts have failed to provide or to initiate joint ventures by districts. With a few exceptions, like the experimental reading and math programs funded in the late sixties and early seventies, however, categoricals tend to self-perpetuating appropriations.

C. *Revenue Sources for Reform*

The political reality of bringing the poor school districts up to the level of spending of the rich school districts and the continued growth of categoricals demanded that a large amount of money be available for public schools during reform.

In Michigan, several factors allowed the state to move toward the necessary reforms without greatly increasing the costs of the total education package. As noted earlier, the total appropriation for state aid increased by nearly $90 million a year for the first two years of reform. This increase is about the same number of dollars that had been added each year since 1969-70 (See Table 16).

Initially, Michigan could easily finance reform due to the existence of a large budgetary surplus. Four factors provided these monies. First, economic growth was exceeding all earlier projections. State revenues were increasing as individuals and business prospered and subsequently paid higher taxes.

Rising property valuations meant larger local contributions. Total state school aid increased nearly 9% or more than $90 million in the first year of the reform, 1973-74. State equalized valuation increased over $3 billion from $44,468,875,814 to $47,601,557,215 producing a total of $1,279,500,000 from local coffers. Together this meant that a total of an additional $160,000,000 was available for education.

The Federal Revenue Sharing Act also provided Michigan with approximately $250 million a year beginning in January of 1972. The legislature appropriated this money to the State School Aid Fund to pay for retirement costs. To date, $866,638,867 has been received by Michigan. A total of over $1.3 billion is anticipated over the life of the program. This action released an equivalent number of dollars in the General Fund that would otherwise have been transferred to the School Aid Fund. Total General Fund monies in 1972-73 were $2.3 billion. This added revenue provided funds for competing state interests supported by the General Fund.

A final "shot in the arm" came from the establishment of the Michigan lottery. Those who saw it as the "Godsend" for education were somewhat ill-informed on the total size of the education budget. Yet, it did provide some help. The lottery began in 1972, and has produced over $67 million for the General Fund in 1974-75. About twenty-five percent of the General Fund monies go to education. Therefore, the amount the lottery produced was less than one percent of the total state aid.

The combination of these economic advantages provided not only a continuation of a high level of state monies for education but also allowed major tax reductions for the citizens of the state. Yet, the demands for more and more monies to finance the school system reforms are growing and state revenue sources remain essentially unchanged.

State appropriations for schools now come from two sources, the State School Aid Fund and the General Revenue. Revenues are earmarked from the sales tax and the nuisance tax on cigarettes and liquor. In addition, federal revenue sharing monies are appropriated to the State School Aid Fund. The balance of the appropriation comes

TABLE 16

MICHIGAN STATE-LOCAL EDUCATIONAL REVENUE PATTERNS

Year	State Funds (Millions)	%*	Local Funds (Millions)	%*	Total (Millions)	Property Tax Credit (Millions)	Adjusted State Funds (Millions)	%*	Adjusted Local Funds (Millions)	%*
1968-69	$ 763.3	47.2	$ 853.0	52.8	$1,616.3	62.2	$ 825.5	51.1	$ 790.8	48.9
1969-70	842.2	46.4	974.7	53.6	1,816.9	73.0	915.2	50.4	901.7	49.6
1970-71	928.4	45.9	1,094.5	54.1	2,022.9	16.1	944.5	46.7	1,078.4	53.3
1971-72	1,019.2	45.7	1,210.4	54.3	2,229.6	48.5	1,067.7	47.9	1,161.9	52.1
1972-73	1,113.0	46.5	1,279.5	53.5	2,392.5	65.1	1,178.1	49.2	1,214.4	50.8
1973-74	1,217.9	46.0	1,427.7	54.0	2,645.6	115.2	1,332.9	50.4	1,312.7	49.6
1974-75	1,311.8	45.3	1,582.3	54.7	2,894.1	127.1	1,438.9	49.7	1,455.2	50.3

*Percent of the total for that year.

Source: Dr. James Phelps, "School Finance Reform in Michigan: Two-Year Results," July 1975.

TABLE 17

MICHIGAN SCHOOL AID REVENUE SOURCES, 1971-1976

Year	General Fund—General Purposes	Total School Aid	General Fund School Aid	School Aid Fund
1971-72	$2,029,500,000	$1,019,297,000	$542,311,000	$476,986,000
1972-73	2,311,500,000	1,120,837,000	607,721,000	513,116,000
1973-74	2,687,100,000	1,211,748,000	651,367,000	560,381,000
1974-75	2,857,400,000	1,294,673,000	700,000,000	594,673,000
1975-76	3,040,000,000	1,370,000,000	705,000,000	665,000,000

from the State General Fund. The earmarked funds have experienced a steady increase. The revenues from this source are anticipated to grow even faster in the future as Table 17 illustrates.

The first two years of the reform were easily handled by increases in these sources. The third year of the reform presents a less optimistic picture. The General Fund of the state has not been growing at the record rates it achieved early in this decade. General Fund appropriations for school state aid have reflected the general economic downturn. The average increase in General Fund monies for education has been about $50 million. The budget for 1975-76 projects only a $5 million increase in the General Funds monies available for education. This small increase partially reflects the increasing non-educational demands on state revenues and the recession.

In addition to trying to expand existing sources of revenue, Michigan is now seeking alternative revenue sources. One direction to look is revenue sharing among districts. In the past, it has not been politically feasible to implement purely redistributive formulas. First, school districts that have large tax bases, do not want to share that wealth. A second roadblock is the issue of local control. Movement toward local revenue sharing raises the argument of infringement on local prerogatives and rights.

D. *Pressures on Future State Financing: Tax Relief and Increased School Aid Demands*

Tax relief programs have flourished in the wake of school finance reform in Michigan. The deliberate policy decision to utilize past surplus revenue for tax relief rather than more monies in education was one of the most critical decisions affecting the success of the educational reforms. The tax relief that so many sections of the state were calling for may have greatly increased the willingnew of people to try a new system of school finance and to vote higher millages to reduce school expenditure gaps.

The tax reduction package passed by the legislature under the active leadership of Governor William G. Milliken, included a major property tax reduction package. The most significant change was the circuit breaker provision, an amendment to the state income tax, designed to reduce the regressivity of the local property tax. The state refunds 60% of property taxes which exceed 3.5% of total income; this provision includes homeowners and renters. Greater relief is available for the senior citizens, disabled veterans and blind persons.*

The personal exemption allowed on the state income tax was raised from $1200 to $1500 at a cost of $121 million to the state for 1973-74 and 1974-75. Other measures of the tax relief program were a business inventory tax credit and a reduction in the state business intangibles tax.** These four measures cost the state $379 million over the past two fiscal years.

The tax reform package itself, an integral element of the school finance program in Michigan has had mixed success. The "circuit breaker" has not yet provided major relief to welfare recipients, a major target group for the reform. A study completed in April of 1975, on the "Utilization of the 1973 Property Tax Credit By Welfare Recipients" concluded that only 12.5% of eligible welfare recipients claimed the property tax credits. This meant that only $3.2 million was provided to recipients while $22.2 million went unclaimed.

The direct school finance demands on the state budget arise from the two goals of the "Bursley Act"—providing tax-expenditure equity between high and low taxing school districts and gradually reducing the spending gap between high and low expenditure districts. The authors of the Michigan reform hoped to meet both goals without greatly increasing overall state appropriations for education.

The track record for the increasing millages in the low-spending districts reveals success in the first two years of the "Bursley Act." The 10% lowest-spending district increased their millages by 16.3%. At the same time, the high-spending districts increased millage levies by only 1.1%. The result of this was a substantial narrowing of the revenue gap, the bulk of which occurred in the first year of the reform. The median millage increased 3% from 24.57 to 25.30. (See Tables 19 and 20).

With the combination of the new formula and successful millage elections, the difference in membership revenues between high and low valuation districts levying the same millage diminished greatly. Depending on the millage levy the revenue gap ranged between $300-$500 per pupil in 1969-70. This gap has been reduced to less than $85 in 1974-75 (See Table 18).

However successful the first year was, the second year has brought a levelling off of that trend. Table 19 illustrates the increase in available revenues in the previously low-spending districts.

It is obvious that while the low-spending districts in-

*It is estimated the change will cost the State $153 million for 1973-74 and 1974-75.

**The state has just passed a single-business privilege tax including repeal of the inventory and intangibles tax. This new direction in taxation raises some funding problems not addressed in this paper.

TABLE 18

SCHOOL FINANCE DISPARITIES ELIMINATED, MICHIGAN 1969-75

Revenue Gap	20 Mills	22 Mills	25 Mills	27 Mills
1969-70	$299	$359	$449	$509
1974-75	20	22	25	85

TABLE 19

MICHIGAN DISTRIBUTION OF MEMBERSHIP REVENUES PER PUPIL, 1972-75

Percentile	1972-73	1973-74	1974-75	Two-year Gain
90	$993	$1,079	$1,208	21.6%
80	933	1,012	1,114	19.4
70	890	969	1,065	19.7
60	863	929	1,023	18.5
50	825	923	1,008	22.2
40	775	912	1,003	29.4
30	736	872	975	32.5
20	700	837	916	30.9
10	634	77[illegible]	857	35.2

Source: See Table 21.

creased their revenues, it was not at the expense of the high-spending districts.

Decreasing the revenue gap disparity would be easier and require less monies if a cap or ceiling could be placed on district spending for education, particularly on rich districts. A recapture provision also would result in more redistribution of monies and thus require less revenues. This provision, while it has been adopted in four states (Maine, Montana, Wisconsin and Utah), may be politically impossible in other states. A constitutional question also is raised whether the state can limit the amount of money a community can spend on education.

Without recapture, the problems of narrowing the spending gap are obvious. The reform brings the low-spending districts up. But top-spending districts increase their expenditure for education and the gap returns. Without recapture or other incentives in the system to limit amounts of spending, more and more monies will be needed to help low-spending districts to keep pace with the high-spending districts. Michigan has revised the third year of the "Bursley Act" to include a two-part or progressive yield formula. This formula creates greater incentives to keep millages low and still allows the freedom for any community to increase the millage level. (See Table 21).

TABLE 21

PERCENT OF SUCCESSFUL SCHOOL BUDGET ELECTIONS—MICHIGAN, 1971-74

	Type of Election		
Year	Operational Renewal*	Operational Additional**	Operational Total
1971	68.9	37.1	56.5
1972	82.8	44.5	70.1
1973	88.9	60.8	77.7
1974	86.1	63.3	73.7

*renewal of existing school tax millage for funding school operating costs
**adoption of increased school tax millage for funding school operating costs.
Source: Dr. James Phelps, "School Finance Reform in Michigan: Two-Year Results," July 1975.

E. *Conclusion*

Court pressures in Michigan to reform the system of financing public schools have been similar to many other states. The internal pressures in Michigan to increase educational expenditures, the necessity to "level up" per pupil expenditures, the well-represented interests of education that demand that no one receive less than in the prior year, and the myriad of categorical grants requiring new monies provide states moving toward reform with a clear picture of the main forces requiring greater revenues during the change.

Michigan initially enjoyed a large surplus of funds, like several states that have moved to reform. But unlike most of those states, Michigan did not put all its dollars into

TABLE 20

DISTRIBUTION OF OPERATION MILLAGE—MICHIGAN 1972-75

Percentile (By Students)	1972-73	1973-74	One-Year Gain	1974-75	One-Year Gain	Two-Year Gain
High	36.90	37.65	2.0 %	37.65	—	2.0%
90	31.57	31.53	(0.1)	31.92	1.2%	1.1
80	29.59	29.65	0.2	30.08	1.5	1.7
70	27.82	27.75	(0.3)	28.48	2.6	2.4
60	26.22	26.59	1.4	27.11	2.0	3.4
50	24.57	24.54	(0.1)	25.30	3.1	3.0
40	23.07	23.15	0.3	24.34	5.1	5.5
30	22.51*	22.51*	0.0	22.90		1.7
20	21.50	22.00	2.3	22.51*	2.3	4.7
10	18.92	20.15	6.5	22.00	9.2	16.3
Low	3.80	3.60	(5.3)	4.3	1.7	13.2

*Detroit is calculated at 22.51 mills.
Source: Dr. James Phelps, "School Finance Reform in Michigan: Two-Year Results," July 1975.

TABLE 22

FISCAL TRAITS OF SELECTED STATE SCHOOL FINANCE REFORM LAWS 1973-1975

STATE	% CHANGE BETWEEN 1973 & 1974			STATE SHARE OF STATE-LOCAL SCHOOL FINANCES IN:		
	Total State General Expenditure	Total State Intergovernmental Expenditure	Education Intergovernmental Expenditure	1972-73	1973-74	1974-75
California	19.4%	25.5%	56.4%	36.7%	45.3%	42.4%
Colorado	13.8	24.5	47.3	28.9	39.6	40.4
Florida	18.1	18.7	18.8	61.3	62.5	63.3
Illinois	7.8	12.2	12.3	39.2	44.3	47.1
Kansas	11.7	29.9	40.3	29.8	47.7	47.6
Michigan	10.4	10.1	9.0	49.5	52.1	49.7*
Montana	7.2	25.2	25.1	38.0	48.7	43.3
N. Dakota	14.1	22.3	73.4	32.3	46.2	46.7
Utah	8.2	21.6	16.2	58.4	61.9	62.5
Wisconsin	15.7	23.2	51.3	31.8	39.0	38.7
Total U.S.	10.9	12.5	16.3	44.1	46.4	47.3

*Taken from state sources

Note to reader: These figures are taken from national data collections in order to standardize information across state lines; this data does not always coincide with information from state sources in the states noted here.

Sources: U.S. Bureau of the Census, *State Government Finances in 1974* (Washington, D.C.: U.S. Government Printing Office, 1975), Table 5; National Education Association, *Estimates of School Finance Statistics, 1974-75, 1973-74* (Washington, D.C.: NEA, 1974,1975)

dramatically increasing the education budget. Michigan chose the route of tax relief. The circuit breaker, the largest in the country, offered the people the tax relief that was demanded by nearly everyone including the educational groups.

The very fact that Michigan was able to accomplish the first stages of reform without increasing the pattern of total expenditures may well make it a "model" reform for legislators seeking to hold costs down, to achieve property tax reform and to revise their systems of school finance.

III. Other State Policies.

The fiscal demands of school finance reform in Minnesota and Michigan are similar to those of many other reform states. State fiscal surpluses, federal revenue-sharing, and the pressures for general property tax relief were factors associated with new educational aid programs. Rising state revenues generally meant that new finance reforms could be financed with relatively modest increases in existing taxes; only a few states had to adopt a new tax source to finance change. While education aid was the major gainer in most state budgets during the first year of change; many other fiscal demands continued to be felt at the state level (See Table 22).

Even with a healthy finance system, however, several reform states have moved to place limits on their overall contributions to new finance plans. Florida, Utah, and New Mexico have placed "caps" on the amount of state aid that they are allotting to the funding of various pupil weighting categories while Illinois, in its first year of reform, placed an upper limit of a 25 percent increase in the amount of aid that a district could receive under its new finance plan. California and Arizona, on the other hand, limited their state contribution by the growth in state taxable property values and personal income respectively. All these actions have been designed to keep school finance programs from becoming too "open-ended".

As the recent economic recession has taken hold, more stringent state revenue measures have occurred. Across the board cuts in school aid programs are scheduled in Michigan and Illinois, and newly revised aid formulas in Michigan and Wisconsin have a strong disincentive for high tax rates in local school districts, aiming to reduce the fiscal pressure of new aid reforms. Moreover, virtually all reform states, due to the pressures of economic recession and the constitutional mandate for balanced budgets, have gradually tapered off their rate of educational aid increase. In many cases this has been possible without great harm to educational programs because of declining enrollments.

Barring a major economic comeback from the recession or a major federal takeover of the financing of major domestic functions now funded at the state level, many states face a difficult task in trying to maintain a high level of support for educational aid reform. Consequently, many states are taking another close look at their revenue structures, diversifying them where popular opinion permits and, in at least four states, requiring wealthier local districts to aid in the overall financing of school aid reform. In order to maintain manageable growth in their new aid packages, moreover, many states are applying a dual set of fiscal limitations—one at the local level limiting the taxes and expenditures a local district may incur after reform and another, at the state level, limiting the amount of available state aid to local districts or tying the growth of state aid to the growth of the general economy. All these measures indicate that the fiscal management of school finance reform is every bit as important as the establishment of a new school aid program.

Chapter VI

Cost Of Education Indices: Issues And Methods

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Through legislative and legal attacks during the 1960's and 1970's, the issue of equity in public schooling has become a major issue for the first time since the 1920's. In the course of debate, public understanding of different kinds of school finance inequality has become more sophisticated.

Prompted in part by court cases starting with *Serrano v. Priest*, educational policy makers have examined closely the financing practices which create inequalities in resources among districts. Consequently, they have realized that the simple reallocation of money will not solve school resource inequities, but that a number of factors other than simply dollar inequalities—including cost variations, variations in "educational need," the effects of non-school spending on school resources, and the fiscal diseconomies of small and large size districts—are problems serious enough to merit investigation.

It is useful to distinguish among four different measures of school inequality. The simplest is revenue or expenditure per pupil. The second, somewhat more complex, involves *real inputs* per pupil—teachers with specific characteristics, building, books, and so on. The third kind of measure focuses on *real resources* per pupil, where resources are defined as inputs which have some definite impact on pupils' schooling goals. The distinction between inputs and resources recognizes that not all inputs are equally valuable to all children: bilingual teachers are a different resource to Spanish-speaking children than to English-speaking children; the value of vocational education facilities varies according to the local labor market. Finally, we can measure inequality in terms of school *outputs*, like achievement test scores, measures of personality development, the ability to obtain jobs or admission to higher education, etc.

While equity in schooling is most often discussed in terms of outputs, it is clear that output measures are the least tractable, both because individuals disagree on what output measures should be used and because our abilities to measure and achieve specific output goals are very imperfect. Measures of resources are equally difficult to use, since we are currently unable to tell with any precision which specific inputs make significant differences in terms of school outputs. (There are some exceptions; e.g., the value of bilingual instruction to non-English speaking children has been fairly well established.) Hence, it is usually necessary for legislative and administrative purposes to use the less satisfactory measures of revenues or real inputs in trying to achieve fiscal equity.

To date, all legislative reforms (as well as all court cases) have measured inequality simply in terms of revenues per pupil. The step from revenues to real inputs requires measurement of cost variations among school districts—the variation among districts in the amount of specified inputs which one dollar can purchase. As long as such variations exist, there can be serious inequalities in real inputs even with absolute equality in revenues per pupil.

The distinction among different measures of equality can also clarify the difference between cost variation and economies of scale. It has been commonly claimed that small school districts are more expensive to operate per pupil than larger districts, and many state aid formulas include special provisions for small districts to reflect this judgment. There are a number of ways in which district size affects cost indices. For example, the cost of a teacher of a given quality may be lower in rural than in urban areas, and transportation costs will surely be higher and land costs lower in rural areas. But diseconomies of scale for small districts may involve school quality factors, and therefore refer to school outputs rather than inputs. For example, small districts may have so few children in a particular grade that pupil-teacher ratios are low, with correspondingly high teacher costs; but since the pupil-teacher ratio is generally thought to be one element of school quality, at least part of the increased costs may be attributed to increased quality, and cannot be fully compared to costs in other districts without suitable controls for quality differences. In this paper, only those cost differences which are not associated with differences in school quality will be considered; economies of scale will not be considered a pure cost factor.

A cost of education index also is very different from an index of "educational needs." The latter index would provide a means of translating revenues or real inputs into real resources or specific outputs; it would indicate the necessary input measures required for different students to achieve at comparable levels on output measures. Such an index might in fact be more important to equity in schooling than cost indices. But the two are conceptually distinct from one another.

I. Construction of Cost Indices for Current Expenditures

In order to construct a cost index, two different sources of expenditure variation must be considered. The first is variation in the desire and economic ability of a school district to provide schooling of higher quality. This is variation due to demand factors. The second is variation in the cost of specific school inputs supplied to particular districts—supply variation. Only the second should enter a

cost index; every effort must be made to insure that no aspect of demand variation enters a cost index, and conversely that no element of supply variation is excluded. Thus, the use of average teacher salary as an index of teacher costs is overly inclusive, since higher average salaries may reflect the desire of a district to attract teachers of higher ability as well as cost differences. The use of a cost of living index as a teacher cost index, on the other hand, excludes variations in teacher costs which may result from the preferences of teachers to teach in certain kinds of districts. The separation of supply from demand factors underlies the construction of all cost indices. But because the nature of demand and supply factors varies for different kinds of school inputs, it is useful to discuss the construction of separate cost indices for different educational inputs.

Teachers. Since teacher costs typically account for the largest fraction of total expenditures per pupil, they have received more attention than other inputs. Cost variations are due to the willingness of teachers of specific quality to teach in a given district. In economic terms, it is necessary to isolate the supply function of teachers for particular districts. Thus, costs may vary among districts according to district size, the socio-economic and racial composition of the student body, the amenities of the area, working conditions in the schools, and other such factors which attract or repel teachers from a district. For specialities where there is easy mobility between teaching and other occupations, like science and math teachers, the prevailing earnings level for alternative occupations may affect the costs of teachers. Successful union organizing can also shift teacher wages upwards. Hence the effect of unionization may be properly included in an index of costs.

Because districts may increase salaries to attract teachers of higher quality—or to attract a larger pool of applicants from which they can more readily select teachers of higher quality—it is necessary to standardize for variations in teacher quality and pupil-teacher ratios in order to construct a valid teacher cost index. This raises the issue of how teacher quality is to be measured. The first approach is to use those characteristics which are considered in teacher salary schedules—usually degree level and years of experience. Of course, experience may be more a function of the tenure system than of a district's demands for quality. The alternative is to use characteristics which can be claimed or shown to cause significant changes in some measure of educational output (like achievement scores). While the second approach comes closer to what we generally think of as measures of quality, a lack of consensus on which possible measures of quality should be used—as well as the lack of data, in most states—makes the first a more plausible alternative. However, the difficulties and limitations of either approach must be kept in mind when constructing and using a cost index.

Because it is necessary to isolate demand effects on teacher salaries from those supply effects which are properly included in a cost index, the construction of a teacher cost index is a complex procedure requiring statistical analysis. So far, the methods for doing this have not been perfected although work on this problem is in progress.

Other methods of deriving a cost index for teachers are only rough approximations of a true adjustment for educational price factors. In particular, it is clear that the efforts in Florida to develop a cost of living index may be inadequate, for at least two reasons. First, teachers need not live in the district where they work, and the high or low costs of a particular district may not affect them. Second and more important, cost conditions are only one of many factors which affect the location decisions of teachers. Of course, construction of a cost of living index is based on well-known methods, although the collection of the required data would in most states be a time-consuming and expensive procedure. Despite our greater familiarity with cost of living indices, it should be clear that they cannot serve as proxies for true teacher cost indices.

Administration. The same conceptual framework developed for teachers should apply to administrators as well: it is necessary to separate those cost variations due to local district "demand" for more and better quality administration from variation due to the price at which administrators offer their services. Unfortunately, it is considerably more difficult to define quality than in the case of teachers. Districts sometimes claim that high administrative costs are imposed on them by state and federal agencies; on the other hand, administrative bureaucracies in some districts (particularly in large districts) have been charged with increasing their own size rather than attending to the business of schooling. In addition, the number of administrators in most school systems are sufficiently small that statistical analysis of salary variations would probably be impossible; that is, the market in administrators is probably too "thin"—there are too few people involved—to estimate supply functions.

There are several shortcuts around the problem of lack of information. One obvious one would be to declare that, since administrative functions are simply instrumental to the functioning of schools rather than an output of school themselves, all administrative expenditures are necessary costs; consequently a cost index should reflect existing actual variation in administrative costs per pupil. But obviously this provides no incentive for districts to keep administrative costs low. A second approach would be to assume that the average administrative salary in a district reflects cost variation, but this would assume that higher salaries do not attract better administrators but simply reflect necessary costs. A third approach would be to use the teacher cost index, under the assumption that the same factors which attract teachers to districts also attract administrators. The third approach probably rests on the least inaccurate assumption, and has the least serious effect in terms of providing incentives to increase administrative costs.

Other Personnel. Again, the construction of cost indices for other personnel—both professional personnel like health workers and non-professional personnel like janitors—requires the separation of demand from supply. However, in these cases, the number of such workers hired by school districts is small compared to all those in that occupation in the labor market area of the school district. Thus, unless the school district makes unusual demands on its employees or provides non-monetary benefits that other employers do not, it is safe to assume

that the cost variation of such employees can be measured by the average earnings of such workers from area to area.

However, labor market areas may not necessarily be coterminous with school districts; in states which have relatively small districts, counties may be more appropriately considered as the labor market from which a district draws non-teaching personnel and, therefore, an adjustment based on county salary differentials should be applied.

Instructional Materials. Most school materials appear to be sold at prices which are standardized state-wide if not nationwide, so that these costs do not vary among districts. The only exception might occur in the case of lower prices due to quantity discounts for large districts, or in higher prices due to greater transport costs for isolated districts. However, such cost variations are likely to be minor, and since instructional materials constitute such a small fraction of school expenditures, the construction of an index reflecting materials costs may not be worth the effort.

Transportation. Cost variation among districts for transportation, unlike the cost variations previously discussed, are due not to the operation of markets but to the physical dispersion of pupils with respect to the schools they attend. While the "quality" of transportation—as measured, for example, in the amount of time which children must wait because of multiple shifts—may vary, this may not be a significant factor. Hence, the pupil densities and relative land area of a district might be the main factors affecting relative transportation costs. Many states now vary transportation aids by such factors and thereby may be effectively adjusting for relative price differences for transportation. Alternatively, since quality is unlikely to vary, the entire expenditure for busing could be considered cost variation.

Miscellaneous. There are a number of other expenditures which have often been claimed to fall more heavily on some districts than others, such as the costs of vandalism, of insurance, and of short term loans. The problem, once again, is to separate those expenditure variations which are due to either local desires for higher quality services or poor local management practices. For example, the high costs of loans have sometimes been ascribed to the inadequate fiscal management on the part of particular districts. Vandalism can be reduced through increased use of security, or through different (and presumably more expensive) design and construction of school buildings. However, such causes of expenditure variation appear to be rather small and beyond the direct control of local school systems. As in the case of transportation costs, it seems plausible to include expenditures for vandalism, insurance, and for interest charges on short- m bonds in a composite cost index.

II. Alternative State Policies

Assuming for the moment that the different kinds of cost indices described in the previous section can be constructed, how shall the state use such indices in its aid policies? There are two basic alternatives: incorporation of cost indices into state aid programs; or state assumption of expenditures.

States currently distribute school aid through matching formulas, in which aid can vary according to local district characteristics like property valuation (as in foundation programs) but does not directly depend on local revenues. One alternative is for the amount of state aid per pupil to be adjusted by an applicable cost index. In some states there are different aid programs for different types of expenditures; in such cases, the program designed for teacher salary subsidies would use a teacher cost index, the transportation fund would adjust aid by the transportation cost index, and so on. However, most states distribute the majority of funds through general aid programs which do not restrict the kinds of expenditures which can be made with state aid. In such cases, aid should be adjusted by a composite cost index which is weighted by the relative budgetary importance of the various expenditure categories (either in the state as a whole or, preferably, in the individual district).

In the case where the amount of state aid per pupil is weighted by the appropriate cost index, then state aid has been adjusted so that the school inputs purchased by a dollar of aid are equal throughout the state. However, this does not imply that the full effects of cost variations among districts have been neutralized, since the effects of cost variations on local revenues are not considered in such an adjustment. Neutralizing the total effects of cost variation would require a state aid formula of greater complexity, one which took into consideration the impact of both cost variation and state aid on total expenditure. The derivation of such an aid formula is a technically complex task inappropriate to this paper.

Since state aid is usually designed with other goals in mind—primarily the correction of expenditure inequalities associated with property valuation—the alleviation of all expenditure inequities due to cost variation may not be completely attainable even with the most sophisticated formula. However, the important point is that adjustment of the amount of state aid by the appropriate cost index is not a complete solution to inequities in school inputs generated by cost variations but is a step in the right direction.

These problems disappear, however, when the state assumes all expenditures, and state disbursements per pupil are adjusted by the appropriate cost index. As long as district choice over school quality is valued, complete cost adjustments for total expenditures are inappropriate because they eliminate the possibility of district choice. However, there are some components of expenditures—notably transportation costs and those miscellaneous expenditures described in the previous section—where local choice over levels of quality has little meaning, and where state assumption may be appropriate.

III. Cost Variations in Construction.

In an era of declining enrollments, construction cost variations may become less burdensome to local districts. Nonetheless, adjusting for construction cost variations is more complex than for current expenditures, largely because of the substitutions possible between capital and current accounts and because of the particular difficulties in judging variations in the quality of buildings. Since we can observe the costs of only those buildings actually

built, it may be impossible to disentangle cost variations from quality variations if some districts—i.e., wealthy districts—consistently build schools of higher quality than other districts. Higher construction costs can, to some extent, reduce maintenance expenditures and instructional material costs during the life of the building. Moreover, the ability of a school district to make such substitutions will generally depend on the ease of bond approval by voters, and is therefore likely to be related to local economic resources.

One important element of a construction cost index which varies considerably from district to district is the cost per unit of land. The second important element is the construction cost per unit—e.g., per square foot—of a school building of "standard quality." Herein lies the greatest difficulty: defining "standard quality" and adjusting observed construction costs to account for differences from "standard quality" which must reflect adjustments in regional labor costs. A third element, probably of rather less importance, is variation across districts in the interest rate paid on long-term bonds; an index of interest costs can be calculated from the variation in interest rates at any particular date. Once these three components of a construction cost index are calculated, they can be combined into a composite index by weighting the proportion of capital outlays which represent land costs, construction costs, and interest payments in the local district.

As in the case of state aid for current expenses, a composite construction cost index can be used in conjunction with either non-matching construction aid or matching aid, in which the state pays a fraction of construction costs. As in the case of current expenditure, such a practice would equalize the purchasing power of state aid, but would not correct inequities based on the unequal purchasing power of local revenue; such a correction would require a much more complex formula.

An alternative approach which obviates the necessity for explicitly calculating a construction cost index has been adopted by Florida and Maryland. In both cases the state has assumed all construction costs, with a state board making centralized decisions about the relative need for and price of construction in the various districts. Since the state assumes all costs, differences in local demands for capital facilities do not affect the ability of districts to fund adequate buildings.

IV. State Use of Cost of Education Indices.

While states have not yet developed sophisticated measures to adjust for differences in the prices of education services, some are beginning to experiment with allocation devices that may eventually distribute more monies into high cost areas. Of the reform states studied, three—Florida, New Mexico, and Utah—bear mention for their approaches to this problem.

Florida, through an initial study conducted by the Florida Department of Administration, has developed a cost of living index which is used to adjust state aid for price differences among the state's districts. Presently, this index is under contest in state court since it is alleged to not accurately reflect actual cost of living differences and also to misstate the relative costs of delivering educational services to Florida school children. No injunction has yet been issued against the price adjustment which has resulted in substantial additional aid going to metropolitan school districts.

Objections to the cost of living index centered on the fact that it does little to measure true cost variations among school districts. Citing the fact that many teachers in an urban district, for example, may commute from other areas, some have suggested that districts could reap an unnecessary fiscal bonus for costs that they in fact do not incur. Others have criticized Florida's present index since it does not include some major prices—those for housing—in its calculation. This can result in a cost understatement for areas that exhibit above-average housing costs. This cost of living index also is criticized for being based on a fixed basket of goods, hence, it does not reflect changes in costs produced by consumer substitution of cheaper goods or the possibility of new technological developments effectively lowering costs while keeping standard of living the same. Finally, and most importantly, the cost of living adjustment makes no correction for those district characteristics other than cost—e.g., size, socio-economic status, location—which may cause teacher supply and teacher salaries to vary.

Another approach to channeling additional school funds to areas with high education costs occurs with the training and experience formula adjustments that have been adopted in New Mexico and Utah. (See Attachment A). In the manner of traditional foundation programs in many southern states, these states allot more operating aid to those districts that have recruited a more experienced or better-educated teaching force. Here the legislative intent is a double one. First, the increased aid removes any fiscal constraints that would prevent a district from hiring these higher priced teachers. Secondly, since the effects of wealth have been largely neutralized by the operation of other parts of the aid formula, this adjustment then compensates districts for higher education costs once they have incurred them. This may be the biggest conceptual flaw with this fiscal adjustment, for it seeks both to influence school district choices in one direction and to compensate them for the additional costs associated with that choice. Hence, it differs drastically from a cost of living index which is relatively hard for a district to control, or a pure educational price index which seeks to measure the true relative cost a district has to pay to attract a certain type of educational resource. However, long-term experience with training and experience indices might eventually indicate how far a district has to go on its pay scale in order to attract the requisite teaching resources. Thus, improved development of state cost of living data along with practical experience with training and experience indices may eventually lead to more systematic approaches to the educational cost problem.

V. The Fiscal Impact of Cost Indices

Even though the principle of adjusting state aid by cost indices may be accepted on equity grounds, this practice implies a relative redistribution of resources from low to high cost districts, and is therefore vulnerable on political grounds. It is useful to know the probable fiscal impact of cost indices, although the lack of empirical research in

this area means that statements about fiscal impact are largely speculative.

It seems clear that cost indices will benefit city schools, for a variety of reasons. Costs of living in urban areas tend to be higher. Teachers may have to be compensated for working in larger school districts where there is more bureaucratic rigidity and supervision or where school buildings are older and more dilapidated. Given the middle-class norms embodied in most schools, teaching in districts with more lower-class and minority pupils may be more difficult, and so require additional pay. Finally, union power appears to be strongest in cities. The scanty empirical work which has been done so far suggests that these factors are in fact significant in increasing teacher costs in cities.

Urban construction costs are usually cited as being higher, especially land acquisition costs. The magnitude of cost differences for cities is, of course, unknown and probably varies considerably from state to state. However, there are indications that costs for central cities may be as high as 20 percent above the state average, indicating that the fiscal implications for central cities of adopting cost indices are by no means trivial.

By the same token, it seems likely that the construction of a cost index would indicate that rural districts have generally lower average costs, particularly for teacher salaries and for certain construction costs. This is partly corroborated by first year experience with training and experience indices in New Mexico. (See Table 1.) In part, such sources of lower costs would be offset in a composite index by higher costs for transportation, and perhaps for instructional materials. Nonetheless, it can be assumed that initially rural districts will suffer relative to other districts in the implementation of a cost index. If rural districts are presumed to suffer from diseconomies of small size, then this factor must be considered separately from a cost index.

Yet rural areas often have a difficult time attracting qualified educational teachers and might benefit by appropriate cost indices. In the two rural states with these adjustments—Utah and New Mexico—the hope is that more educational resources will be attracted into rural areas where it has been difficult to retain such high-priced resources. At this point, the experience with such adjustments seems mixed in these latter states with some but not all rural areas benefiting from these adjustments. Moreover, in two states—Florida and New Mexico—these adjustments have resulted in additional monies flowing into the wealthier areas of the state, thereby diluting the wealth equalization of their basic formula to some degree.

Finally, implementation of a cost index would probably increase the inputs flowing to children from low-income families and to minority pupils. In part this would be true because cities contain high concentrations of poor and minority families. But it is generally assumed—and existing research corroborates the assumption—that teachers prefer to be in schools with white, middle-class pupils; to the extent that they demand higher pay for teach-

TABLE 1

SELECTED CHARACTERISTICS OF NEW MEXICO SCHOOL DISTRICTS RANKED BY TRAINING AND EXPERIENCE INDICES, 1974-75

District	1974-75 Training And Experience Index	Equalized Wealth Per ADM 1974-75	Projected Average Teacher Salary 1976	1974-75 Average Daily Membership (ADM)
HIGHEST INDEX DISTRICTS				
Tatum	1.118	105,052	$12,012	430
Lovington	1.111	35,641	12,386	2789
Jal	1.110	63,899	12,794	757
Carlsbad	1.096	17,775	12,427	6195
Los Alamos	1.087	7,871	13,172	4803
Portales	1.082	6,845	11,462	2652
Hobbs	1.075	15,683	11,832	7061
Cobre	1.072	29,677	11,541	2495
Roswell	1.071	8,855	11,429	9566
Average	1.091	32,366	12,117	4083
LOWEST INDEX DISTRICTS				
Animas	930	10,072	9,918	520
Elida	.928	27,280	9,140	139
Encino	.916	39,978	8,700	94
Des Moines	.915	18,093	9,306	193
Jemez Mountain	.912	36,895	10,442	653
Floyd	.912	12,020	9,508	205
Mosquero	.889	28,951	9,044	104
Mountainair	.854	17,204	9,185	396
Average	.907	23,812	9,417	288

Source: Data supplied to NCSL by the New Mexico Legislative School Study Committee

ing lower-class and minority pupils, this fact should be reflected in a valid cost index and therefore provide greater resources per pupil than is currently the case.

VI. Difficult Policy Issues in Implementing Cost Indices

The prospect of adjusting state aid programs to reflect local cost conditions generates a number of policy issues which are not easy to resolve. The most controversial is the issue of incentives created by cost indices. When a state distributes some portion of its aid through a program which incorporates cost indices, then individual districts and the personnel within them have an incentive to increase the amount of aid they are due in two ways: 1) by making their costs appear higher than they actually are, so as to increase the value of the cost index for them, and 2) by shifting expenditures to high cost components of state aid. There are three undesirable consequences of such distortions. First, they are potentially inequitable if some districts are more readily able to distort costs and spending patterns so as to obtain more state aid; second, they are potentially costly to the state to the extent that districts are able to obtain more aid than they would otherwise be entitled to; and third, the very process of distorting costs and shifting expenditures among different accounts may itself be inefficient and wasteful. From the viewpoint of the state, cost indices should be designed so as to minimize the possibility of such distortion.

If cost indices are constructed by use of statistical data which are not subject to school district manipulation, then the possibility of a district distorting its cost factor in its favor is remote. The greatest danger comes when an index relies on data generated by the district and when the state has no power to check the validity of the data. Such a situation sometimes occurs, for example, in the case of state aid based on local property valuation, where inadequate adjustment of locally-assessed property to reflect differences in assessment ratios within the state creates incentives for districts to assess property at the lowest fraction of market value possible. The danger of distortion is greatest when the fiscal consequence to the district is large: i.e., when the state contributes a large fraction of expenditures per pupil, or when the state assumes all costs for a particular expenditure like transportation or construction. If, for example, the state assumes all transportation costs, then in the absence of state controls each district has an incentive to increase transportation outlays by increasing the number of buses and the amount of transportation used for field trips and the like. For similar reasons, state assumption of construction costs in Florida required the creation of a state board to judge the relative need for proposed construction projects. In a different vein, if the construction of a cost index fails to separate demand from supply factors adequately, then districts have an incentive to increase salaries (presumably attracting teachers of better quality) since some of their increased costs will be borne by the state because of a higher cost factor rather than by local taxpayers. To minimize distortions, therefore, the procedure for constructing cost indices must be accurate and the data used in its construction must be free from local manipulation.

The possibility of distorting expenditure patterns so as to maximize state aid does not arise under all state aid plans. If aid is distributed through non-matching programs adjusted by cost indices, then the amount of aid is unaffected by local expenditure patterns. However, if aid is disbursed through matching grant programs—as is increasingly the case, given the pressure of courts and legislatures to mitigate the effects of property valuation on expenditures—then distortion can readily occur. For example, if a state distributes general aid through a matching program corrected with a cost index but construction aid is not corrected for cost variations, then some districts with high construction costs have an incentive to shift construction expenditures into current accounts, and low-cost construction districts may have an incentive to shift current expenses into capital accounts. Furthermore, in this case high-cost districts will have an incentive to shift non-school expenditures into school accounts to the greatest extent possible; this could affect expenditures for recreation, libraries, and nutrition, for example. Thus the inclusion of cost indices in part but not all of a state's aid program would require careful monitoring to ensure that inequities and inefficiencies are not created by the rational responses of districts to fiscal incentives.

A second policy problem is similar to that of incentives: the use of cost indices may exacerbate the escalation of teacher salaries under pressure from unions. Salary differences due to variations in union strength are properly considered among the supply factors which are included in a cost index, since union-induced salary premiums are not induced by the local district demands for teachers of higher quality. But the inclusion of a variable measuring the effects of union salary structures simply increases the incentive for teacher unions to escalate wage demands, and decreases the incentive for districts to resist these demands. The effect might be to build into a state aid program a self-reinforcing escalation of teacher salaries—at least for some districts—with no way of controlling salaries. Since the problem raised here is inherently political, the alternative ways of coping with this problem are also political. One alternative is to bargain with unions at the state level, as a way of reducing the power of unions in specific districts (like large cities). Another is to tie salary levels to other variables—like the salaries of other types of workers—which are not under the control of unions, but which vary over time and across communities. This too is an effort to undermine the purely political power of unions. A third approach is to eliminate from a cost index any reference to the power of unions, so as to prevent the self-reinforcing mechanism of wage escalation described above. Such an approach is obviously of no help to specific districts in which unions are powerful, but it is consistent with the available statistical evidence which indicates that, on the average (though perhaps not for individual districts), the effect of unions is insignificant.

A third problem to be faced is ethical rather than economic. One of the sources of teacher salary variations which has been statistically verified is the existence of "battle pay" for teachers in districts with concentrations of low income and minority pupils. The preferences of teachers for some districts over others is clearly an ele-

ment of supply which is correctly included in a salary cost index. However, the use of such a correction will institutionalize the wage premiums for the racist and class-biased preferences on the part of some teachers. Not only are such rewards objectionable in themselves, their existence may cause teachers to overstate their prejudices. On the other hand, it is of course unfair to penalize further poor and minority children for the prejudices which are, after all, a societal problem much larger than the institution of schools.

This brings us to a final problem, one which is probably of greater practical importance than the others mentioned in this section. The adoption of cost corrections for school resources involves the political process. More importantly, since some districts gain relative to others, the adoption of a cost index has political consequences—some groups gain and some lose. The creation of cost indices has, in contrast, been described as a technical matter for statistical analysts and educators. Arguments over the correct derivation of cost indices are of course unavoidable, but these will be technical and statistical arguments, rather than political contests based on which groups gain and which lose. The political and technical aspects of cost indices are likely to be in tension with one another, particularly in states where rural and suburban areas have greater power than urban areas. Thus, if the construction of cost indices is too politically biased, the result may bear less relation to variations in costs than to variations in power. Such an outcome, on equity grounds, would be deplorable. As is the case for other aspects of equalization, it may be necessary to defer the adoption of cost indices to such a time when a consensus on their necessity is strong enough to override the usual political considerations. Any other strategy may run the risk of producing an outcome less equitable than the current one.

ATTACHMENT A

NEW MEXICO TRAINING AND EXPERIENCE ADJUSTMENT LEGISLATION

Section 15. A new section 77-6-18.8 NHSA 1953 is enacted to read:

"77-6-18.8. Instructional staff training and experience index—definitions—factors—calculation.—

A. For the purpose of calculating the instructional staff training and experience index the following definitions and limitations shall apply:

B. The factors for each classification of academic training by years of experience are provided in the following table:

(1) "instructional staff" means the personnel assigned to the instructional program of the school district, excluding principals, substitute teachers, instructional aides, secretaries and clerks;

(2) the number of instructional staff to be counted in calculating the instructional staff training and experience index is the actual number of instructional staff on the October payroll;

(3) the number of years of experience to be used in calculating the instructional staff training and experience index is that number of years of experience allowed for salary increment purposes on the salary schedule of the school district; and

(4) the academic degree and additional credit hours to be used in calculating the instructional staff training and experience index is the degree and additional credit hours allowed for salary increment purposes on the salary schedule of the school district.

	Years of experience				
Academic classification	**0-2**	**3-5**	**6-8**	**9-15**	**Over 15**
Bachelor's degree or less	.75	.90	1.00	1.05	1.05
Bachelor's degree plus 15 credit hours	.80	.95	1.00	1.10	1.25
Master's degree or bachelor's degree plus 45 credit hours	.85	1.00	1.05	1.15	1.20
Master's degree plus 30 credit hours	.90	1.05	1.15	1.30	1.35
Post-master's degree or master's degree plus 45 credit hours	1.00	1.15	1.30	1.40	1.50

C. The instructional staff training and experience index for each school district shall be calculated as follows:

(1) multiply the number of instructional staff in each academic classification by the numerical factor in the appropriate "years of experience" column provided in the table in Subsection B of this section;

(2) add the products calculated in Paragraph (1) of this subsection; and

(3) divide the total obtained in Paragraph (2) of this subsection by the total number of instructional staff.

D. In the event that the result of the application of the training and experience index is .95 or less, the district's factors shall be no less than .95"

Chapter VII

Federal Aid and State School Finance: Present Patterns and Future Alternatives

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A decade ago, the federal government had substantial impact on the reform of school finance patterns. In the wake of the war on poverty, the Johnson landslide, and urban disturbances, the federal government enacted school finance programs which provided state and local governments with badly needed support for disadvantaged children, funds which flowed in substantial proportion to large urban and poor rural districts most affected by fiscal pressures.

However, in subsequent years, dollar support for these programs has not been sufficient to sustain a growing federal share of elementary and secondary school revenues. After expanding from 4.3 percent to 8.8 percent between 1965 and 1967, the federal share of public school revenues declined to 7.5 percent by 1974. The initiative now belongs to the states. Pressed by a new breed of political leadership, court orders for equality in educational services, and citizen demands for property tax reform, more than one-third of the states have enacted major revisions in their school finance legislation since 1971, increasing the state share of school support by nearly 10 percent in the reform states.

On the agenda of researchers and policymakers alike, this new state legislation has become the primary area of interest. Yet as this chapter will indicate, federal aid will remain a topic of prime importance to educational finance. The influence of federal aid is considerably more important than its slim share of total public school revenues, and the functions it performs, particularly the focus on the disadvantaged and the handicapped, supplement and complement recent state school finance reform developments. This chapter will discuss the relevance of federal aid to school finance trends, patterns, and developments.

Misapprehensions About Federal Aid

For those concerned with reform of state school finance systems, an understanding of the dimensions and purposes of federal aid is necessary both because federal aid serves purposes not fully met by school finance reform, and because federal aid is beginning to be used as a stimulus to encourage reform of state school finance systems in a variety of ways.

Unfortunately, two misapprehensions widely shared by those who develop, pass, and implement state education policies tend to dampen state interest in federal aid: (1) federal aid provides too small a proportion of public school funding to warrant much attention; (2) federal aid is controlled by the federal government, thus it is not really a state and local concern. While each of these positions has some surface plausibility, neither can withstand careful examination.

While the overall contribution of federal funds for the support of public elementary and secondary education may constitute only seven or eight percent of total public school spending, the state of Mississippi in recent years receives about 25 percent of its school revenues from the federal government and another half dozen states get better than 15 percent of their school revenues from federal programs. For many school districts, federal aid is even more important: city districts as varied as Colorado Springs, Colorado; Albany, New York; San Antonio, Texas; and Norfolk, Virginia receive between 25 and 30 percent of their instructional expenses for elementary and secondary schools from federal aid.

Federal aid also merits the interest of state education policymakers for several other reasons as well: better than half of most state education department personnel are supported by federal funds, either through Title V of ESEA or through the percentage of funds from each federal program intended for state administrative purposes. Furthermore, in certain areas of federal interest, federal aid provides predominant funding and influence. In such areas, federal aid can have substantial impact:

> it is clear that the emerging role of the federal government through the Office of Education is an external force promoting the greatest changes in the large city school districts that have been witnessed in the course of their history . . . Compensatory education was virtually nonexistent prior to federal aid. The proliferation of experimental programs can be traced directly to the influence of federal aid policies.[1]

In short, while the federal government may provide less money for public schools than state or local governments, federal funds provide strategically important funding that has a far larger effect than its aggregate proportion of school funding would suggest.

The second misapprehension about federal aid—that it is federally controlled and leaves little room for state policy direction—also fails to survive close investigation. Those who have studied the question have come to quite a different conclusion. David Porter and his colleagues, after examination of the resource allocation practices of local school districts wrote:

> *The main finding of our research on federal aid is that factors other than the federal regulations and*

formulas have a greater impact on the patterns of resource allocation used by recipient agencies (emphasis in original) . . . Federal allocators can have only very limited control over the final disposition of their funds. . . . The ambiguity of the goals, the unsophisticated technologies, the number and characteristics of its income sources, strategies such as multi-pocket budgeting or marginal mobilizing, professionalism and the vested interests of school staffs are the primary groups of factors influencing patterns of resource mobilization in local school districts. Most of these factors are not easily regulated or controlled.[2]

A three year study which investigated both the distributional patterns of federal aid and the political and administrative factors which caused those patterns in six states noted that

> . . . immense areas for state discretion . . . exist in the allocation of most federal programs. This discretion is partly a result of statutory language that permits state development of distributional formulas and procedures, and partly the result of a lack of enthusiasm that USOE administrators have for enforcing or policing aid programs.[3]

While such discretion has sometimes permitted the maintenance of traditional state practices which conflict with federal objectives, the ability of states to funnel federal aid to serve their own objectives makes federal aid policy an important state finance policy arena. Focusing federal funds on reform purposes integrated with or supplemental to state legislation could substantially increase the power of state finance systems to meet educational and legislative objectives. In any event, a substantial proportion of federal aid policy is amenable to state discretionary influence.

Significance of Federal Aid

Between 1961 and 1974, federal aid to elementary and secondary education has grown more than five-fold, from just under $760 million to over $4.2 billion and currently constitutes about 7.5 percent of all public school revenues. The impact of federal aid, however, is substantially greater than its small share of educational revenues suggests. This impact, in part, results from the fact that federal aid for elementary and secondary education tends to be relatively focused. The proponderant share of federal outlays for elementary and secondary education are concentrated in three programs, educationally deprived children, federally impacted areas, and vocationally related training.

Federal aid to education is of great significance to the question of school finance reform not only due to its strategic concentration in a small number of programs, but also due to the way it is distributed across the states and their local education agencies. As a growing body of research demonstrates, the flow of federal aid across state and local education agency lines varies not only by region and community type, but also by program. A summary of this research follows.

Patterns of Distribution Among the States

States differ considerably in the total amounts of per pupil federal aid they receive and in the proportion that such aid constitutes of their total educational spending. In dollar amounts, the range runs from under $60 per pupil in the seven states receiving the least aid per pupil to over $150 in the five states receiving the highest totals (Table 1). The differences in the proportion of federal aid is even more marked since some of the lowest expenditure states receive the highest amounts of aid and the highest spending states receive some of the lowest allocations. At the top of the rankings, five states receive better than fifteen percent of their educational revenues in federal aid, whereas at the bottom of the scale five states receive less than 4.5 percent.

Is there consistency to the types of states that receive high proportions of federal aid? The clearest conclusion is that states located in the Southeast tend to receive high proportions of aid. They benefit from being at the right end of a double barrelled weapon: both high proportions of children in poverty (bringing high Title I funding) and a heavy concentration of military bases (qualifying them for P. L. 874 payments) contributes to their ability to attract federal aid.

A second conclusion is that major industrialized states fare poorly in the federal aid competition. All fall below the average in their proportion of federal aid, and most are clustered near the very bottom of the range.

To answer most of the questions raised about federal aid we shall employ a twelve state sample of the most recent available data which combines the 1970 Census and a USOE 1969/1970 school finance survey.[4] The states were selected to be roughly representative of the nation's geographic regions, school finance systems, demographic and socio-economic characteristics. As expected, the per pupil federal revenue range among the sample states is substantial, from $40 per pupil in Michigan to $99 in Mississippi (Table 2). When one breaks out individual federal programs the variations among the states is ever more extreme: Title I ranges from $55 per pupil in Mississippi to $10 per pupil in Washington. The significance of such variations are, of course, more important in the larger programs like Title I of ESEA and P. L. 874 than they would be in smaller ones. Table 3 shows that variation. For example, in New York 67 percent of its total federal aid is derived from ESEA Title I and 7.6 percent from P. L. 874. On the other hand, Colorado receives 47.1 percent of its federal aid entitlement through P. L. 874 and only 17.6 percent through ESEA I. Virginia with both high incidence of poverty and numerous federal installations receives relatively high proportions of both programs, 27.5 percent and 46.4 percent respectively from Title I and P. L. 874.

Poverty, Income, and Federal Aid

Education in districts with high proportions of children from impoverished families is generally considered to require more intensive and thus more costly educational services than in more typical school districts.[5] Both state, and more notably, federal education laws embody aspects of this concept of compensatory education. What is the effect of such policy on federal aid allocations? We begin with one of the more widely accepted proxies for need, the number of children in a community who come from impoverished homes. In general, we find that

TABLE 1

PERCENTAGE AND DOLLAR AMOUNT OF TOTAL REVENUES PER PUPIL FROM THE FEDERAL GOVERNMENT, BY STATE 1973-1974

STATE	% FEDERAL REVENUE OF TOTAL REVENUE[1]	FEDERAL REVENUE PER PUPIL[2]	STATE	% FEDERAL REVENUE OF TOTAL REVENUE[1]	FEDERAL REVENUE PER PUPIL[2]
Mississippi	24.5	$222	Kansas	8.0	100
Alaska	16.8	360**	Nebraska	7.9	83
Arkansas	16.3	142	Missouri	7.6	91
New Mexico	16.0	166	United States (Average)	7.5	101
South Carolina	15.8	157	Arizona	7.4	91
South Dakota	14.9	159	Colorado	7.3	97
Alabama	14.4	118	Ohio	7.3	83
Louisiana	14.0	146	Pennsylvania	6.8	103
Kentucky	13.8	123	California	6.7	108
Tennessee	13.1	118	Delaware	6.6	113
West Virginia	12.5	115	Maryland	6.2	110
Georgia	12.0	114	Nevada	6.1	74
Idaho	11.1	107	Vermont	6.1	86
Wyoming	11.1	126	Illinois	5.9	96
Texas	11.0	117	New Jersey	5.7	93
North Carolina	10.5	119	Massachusetts	5.2	68
Virginia	10.4	124	Indiana	5.1	59
Maine	9.3*	92*	Iowa	4.9	58
Oklahoma	9.3	89	New York	4.9	104
North Dakota	9.1	105	Minnesota	4.7	70
Florida	8.7	98	Oregon	4.1	56
Washington	8.7*	119*	Michigan	4.0*	52*
Montana	8.5*	93*	Wisconsin	3.3	45
Hawaii	8.2	119**	Connecticut	3.1	48
Utah	8.2	84	New Hampshire	3.0	32
Rhode Island	8.1	107			

[1]Table G-10 "Estimated Percent of Revenue of Public Elementary and Secondary Schools from the Federal Government, 1973-1974," *Ranking of the States*, 1974, NEA, p. 51., Washington, D.C.

[2]Derived from Table G-2 "Public-School Revenue Receipts Per Pupil in Average Daily Attendance 1973-1974," *Ranking of the States*, 1974, NEA, p. 48.

*NEA Research estimate.

**Reduce 30% for Alaska and 19% for Hawaii to make purchasing power comparable to figures for other areas of the United States.

TABLE 2

FEDERAL AID DISTRIBUTION PER ADM, 1962-1970

	Calif.	Colo.	Kansas	Mass.	Mich.	Miss.	N. Y.	N.C.	Ohio	Texas	Va.	Wash.
Total Federal Aid as % of Instructional Expenditures	9.5	13.3	12.9	7.1	7.0	30.7	8.7	19.3	10.3	14.7	18.6	9.9
Total Federal Aid	$56.22	$64.45	$62.90	$42.26	$40.10	$98.50	$66.13	$75.92	$51.68	$58.31	$90.72	$58.39
ESEA I	16.99	11.36	20.40	14.38	14.35	54.86	44.30	38.72	14.58	17.60	24.99	9.85
ESEA II	.45	.32	.47	.58	.64	.88	.82	.50	1.05	.92	.14	1.47
ESEA III	1.94	2.75	3.60	3.13	2.94	2.97	2.18	3.44	2.80	.41	2.37	1.85
NDEA III	.24	1.39	.50	1.71	.89	1.30	.91	.86	1.42	1.06	.80	—
P. L. 874	13.80	30.33	20.96	11.37	1.75	7.08	5.03	6.26	5.43	13.12	42.05	6.00
Vocational Education	2.80	1.67	.01	2.68	2.24	4.33	1.03	4.16	5.90	1.56	1.65	2.36
Misellaneous	17.88	13.23	14.30	6.72	13.25	22.52	10.96	17.95	18.24	20.84	15.79	27.84

Source: U.S. Census—Elsegis 1970 merged data file compiled by Syracuse Universtiy Research Corporation

TABLE 3

PERCENTAGE OF FEDERAL AID RECEIVED THROUGH TITLE I AND P. L. 874, 1969-70

	TITLE I as % of Total Federal Aid	PL 874 as % of Total Federal Aid
California	30.2	24.4
Colorado	17.6	47.1
Kansas	32.4	33.3
Massachusetts	34.0	26.9
Michigan	35.8	4.4
Mississippi	55.7	7.2
New York	67.0	7.6
North Carolina	51.0	8.2
Ohio	28.2	11.4
Texas	30.2	22.5
Virginia	27.5	46.4
Washington	16.9	10.3

Source: U.S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation.

TABLE 4

FEDERAL AID AND POVERTY, 1969—1970

	Total Federal Revenue Per ADM	Index of Federal Revenue[1]	Percentage of Related Children in Poverty Families	Index of Poverty[1]
California	56	.90	12.3	.88
Colorado	64	1.12	10.9	.79
Kansas	63	1.10	10.4	.74
Massachusetts	42	.73	8.5	.61
Michigan	40	.70	9.0	.64
Mississippi	99	1.71	39.6	2.85
New York	66	1.15	12.8	.92
North Carolina	76	1.32	23.4	1.68
Ohio	52	.88	10.6	.76
Texas	58	1.02	19.5	1.40
Virginia	91	1.57	16.7	1.20
Washington	58	1.02	8.5	.61

[1]The index is the state amount divided by the weighted mean for 12 states.

Source: U.S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation

TABLE 5

RELATIONSHIP BETWEEN FEDERAL AID AND POVERTY, 1969-70 CORRELATION COEFFICIENTS

	Total Federal Aid	Title I
California	.388	.807
Colorado	.010	.267
Kansas	.204	.597
Massachusetts	.453	.628
Michigan	.648	.731
Mississippi	.550	.776
New York	.589	.658
North Carolina	.782	.888
Ohio	.202	.822
Texas	.645	.784
Virginia	.314	.786
Washington	.118	.616

Source: U. S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation

TABLE 6

RELATIONSHIP BETWEEN FEDERAL AID AND MEDIAN FAMILY INCOME, 1969-70 CORRELATION COEFFICIENTS

	Total Federal Aid	Title I
California	-.438	-.535
Colorado	-.021	-.316
Kansas	.022	-.249
Massachusetts	-.321	-.420
Michigan	-.421	-.572
Mississippi	-.529	-.714
New York	-.320	-.381
North Carolina	-.799	-.836
Ohio	-.140	-.615
Texas	-.562	-.714
Virginia	-.136	-.764
Washington	-.142	-.562

Source: U. S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation

the higher the proportion of poverty in a state, the more federal aid it receives. Table 4 shows, however, that there is variation, and that in four of the twelve states, Colorado, Kansas, Washington and Texas, the pattern does not hold.

When one examines the same question *within* the twelve states—that is by correlating the flow of federal aid with poverty among the school districts of each state—total federal aid flows are positively related to increasing proportions of poverty pupils (Table 5). In half the states, the correlations are statistically significant; (that is, they appear to indicate a strong relationship) in half the correlations are moderate; but in all twelve they are positive. The more poverty, the more aid.

Table 5 also shows that Title I, as one would expect, is even more highly correlated with poverty than all federal programs taken together (although even here, Colorado appears to be an anomaly). This relationship controls the overall pattern of federal aid since Title I is the largest of federal programs nationally and in most states. Obviously, other federal programs do *not* relate positively to poverty, thus the lower correlations for total federal aid than for Title I.

Median family income is another measure of educational need. This indicator shows that in general the lower the income in a district, the higher its aid. These negative

correlations appear in all states on Table 6 with the exception of Kansas. However, the relationships are not as strong as they were with poverty. Again, in every state the association between median family income and Title I is stronger than with median family income and total federal aid.

Of the two proxies, poverty is probably the more accurate indicator of economic disadvantage. This difference is most important in a district or state having a highly heterogeneous pattern of personal income distribution; median family income can represent an averaging of extreme values and fail to identify the incidence of low income in the community.

Federal Aid, the Central Cities, and Rural Areas

The redistribution of population and economic activities within metropolitan regions has brought about numerous educational and fiscal problems in large city school districts. The consequences of this sorting out process has often been a deterioration of the citys' tax base, higher urban education costs, problems of municipal overburden, and inadequate state responses to the problems of many central cities. Federal aid, and Title I of ESEA in particular, has been responsive to these problems, largely because the majority of central cities are characterized by increasingly large populations of children who live in poverty. Rural poverty is also widespread, and, not unexpectedly, federal aid and Title I reflect this characteristic by providing higher than average allocations in such areas.

In heavily urban states such as New York, Ohio, Massachusetts, and Michigan, federal aid focuses primarily on central cities. In states with a more mixed degree of urbanism, (Colorado, California, Kansas, Texas, Virginia) the central cities, suburban and rural areas tend to be more balanced in aid distributions. Finally, in rural states such as Mississippi, North Carolina, and Washington, the balance shifts toward rural areas (Table 7). This is partly because of the distribution of poverty in the state and partly because of the strength of urban or rural representation in the affected state.

Among central cities there is marked difference in aid receipts. Albany, New York, receives $189 per pupil to Jackson, Mississippi's $40. Even within states, the differentials are substantial. San Francisco receives twice as much total federal aid per ADM as Los Angeles ($102 to $51). While interstate variations are conditioned by the Title I formula which is directly related to the average per pupil expenditure level of the state, intrastate variations are more difficult to explain. However, our analysis strongly suggests that the relative fiscal position of the central city to its state affect the level of aid received. As Table 8 illustrates, Jackson is considerably wealthier than the Mississippi state average, while Albany is slightly poorer in income than the New York state average.

Another important characteristic about federal distributions that emerges from Table 7 is the varying pattern among programs. A number of major programs leave considerable leeway to states in determining allocation formulas. When their allocations are contrasted with Title

TABLE 7

PER PUPIL FEDERAL REVENUE BY JURISDICTION 1969-70

	Title I	Discretionary Funds*	Total Federal Aid
California			
Central City (CC)	$23	$ 7	$68
Outside Central City (OCC)	11	4	52
Rural	26	5	72
Colorado			
CC	21	8	58
OCC	6	5	49
Rural	13	9	61
Kansas			
CC	29	3	73
OCC	9	6	60
Rural	24	4	58
Massachusetts			
CC	31	15	72
OCC	7	5	29
Rural	9	11	44
Michigan			
CC	32	11	82
OCC	8	6	23
Rural	14	5	35
Mississippi			
CC	20	3	49
OCC	30	6	108
Rural	65	9	101
North Carolina			
CC	$23	$ 9	$56
OCC	26	8	74
Rural	53	11	91
New York			
CC	87	8	122
OCC	11	3	19
Rural	18	4	28
Ohio			
CC	26	17	74
OCC	6	7	33
Rural	11	6	35
Texas			
CC	18	5	61
OCC	15	3	74
Rural	29	2	57
Virginia			
CC	32	5	91
OCC	14	6	72
Rural	39	11	73
Washington			
CC	16	7	68
OCC	6	7	43
Rural	16	6	99

*Discretionary Funds include voc-ed, Title II and III of ESEA, and Title III and V-A of NDEA

Source: U.S. Census—Elsegis 1970 merged date file compiled by Syracuse University Research Corporation

TABLE 8
PER PUPIL FEDERAL AID DISTRIBUTIONS FOR SAMPLED CENTRAL CITIES, 1969-70

	Total Federal Revenue	Total Federal Revenue as % of Total Instructional Expenditure	ESEA I as % of Total Instructional Expenditure	ESEA I	Current Expenditures	Equalized Property Value/Pupil	Median Family Income
California							
Los Angeles	$ 51.17	9.6%	4.3%	$22.86	$ 823	$ 67279	$10336
San Diego	78.92	13.0	3.2	19.22	803	42381	10220
San Francisco	102.33	10.9	3.1	29.56	1322	121942	10503
Colorado							
Colorado Springs	132.42	26.3	1.9	9.52	656	27716	8826
Denver	78.47	14.1	4.3	24.04	802	45369	9654
Pueblo	48.99	11.1	3.3	14.40	585	22612	8491
Kansas							
Topeka	39.85	7.3	3.8	20.57	695	63224	9591
Wichita	66.57	11.6	5.1	29.42	749	38550	9562
Massachusetts							
Boston	66.76	10.3	5.7	37.13	836	20215	9133
Springfield	83.31	13.3	4.7	29.67	753	18490	9612
Worcester	65.68	9.3	3.8	27.00	879	20012	10038
Michigan							
Detroit	88.63	15.4	6.0	34.45	851	17658	10045
Flint	49.48	8.0	3.2	19.75	1130	19042	10161
Grand Rapids	94.68	15.3	5.0	30.70	910	19931	9976
Mississippi							
Jackson	39.64	10.6	4.7	17.55	507	40126	8535
New York							
Albany	189.01	24.9	9.7	$73.36	1246	50213	9947
Buffalo	142.74	20.9	13.7	93.36	1064	27305	8804
New York City	98.13	12.7	9.6	74.26	1235	44230	9683
North Carolina							
Greensboro	39.80	8.7	2.7	12.19	604	39971	10104
Raleigh	38.93	9.2	4.1	17.10	580	73923	10096
Ohio							
Cincinnati	80.77	15.0	4.8	26.00	329	59840	9235
Cleveland	87.61	14.7	6.5	38.65	917	62988	9133
Columbus	62.11	12.2	4.4	22.71	748	45053	9646
Texas							
Dallas	32.85	7.8	3.1	13.22	542	69605	9748
Houston	30.40	7.5	3.2	13.01	519	51047	9596
San Antonio	103.70	27.7	8.9	33.25	477	23552	7026
Virginia							
Newport News	88.77	18.9	4.0	18.79	629	29649	9325
Norfolk	155.48	29.9	8.8	45.49	664	29053	7821
Richmond	94.27	17.3	8.8	48.09	759	43022	8673
Washington							
Seattle	52.22	7.5	2.0	13.76	940	36298	11034
Spokane	44.78	7.3	2.9	17.67	833	15712	9206
Tacoma	79.74	10.9	2.1	15.47	985	19599	9771

Source: Same as Table 3

I and total federal aid, considerably different patterns emerge vis a vis school district location. That is, most of the states which heavily favor urban or rural areas in Title I and total federal aid, usually favor them in their distribution of state discretionary formulas as well. However, there are four exceptions to this observation. What emerges from this table is that states may be reacting to political pressures to spread funds more evenly in discretionary programs in which federal regulations do not determine allocations as rigidly as they do in Title I of ESEA. This observation is consistent with earlier conclusions which found states utilizing their traditional state aid formulas as the predominant approach to distributing discretionary federal aids.

Federal Aid and Property Valuation

Most state aid formulas are designed—although imperfectly—to equalize property value differentials among school districts. As already noted, federal aid, although only partially intended to, operates to equalize income or poverty levels. Does federal aid also fill the more traditional equalization role? Table 9 shows that the distribution of federal aid when viewed in terms of property wealth does not overcome the existing wealth based disparities

TABLE 9

TOTAL REVENUE PER PUPIL[1], 1969-70
(Grouped by Property Valuation

	Calif.[3]	Colo.[3]	Kans.[3]	Mass.	Mich.[3]	Miss.	N.Y.	N.C.	Ohio	Texas	Va.	Wash.[3]
1st Quintile[2]												
Total Revenue[4]	**$1,164**	**$962**	**$1,137**	**$1,077**	**$1,116**	**$540**	**$1,533**	**$663**	**$925**	**$785**	**$853**	**$966**
State & Local	1,096	909	1,089	1,045	1,082	440	1,492	606	879	727	763	870
Federal	68	53	47	32	34	100	42	57	46	58	89	96
2nd Quintile												
Total Revenue[4]	**925**	**847**	**895**	**977**	**1,011**	**515**	**1,306**	**619**	**876**	**620**	**659**	**971**
State & Local	867	797	849	950	978	409	1,257	557	840	570	602	920
Federal	57	50	47	27	33	107	49	62	36	50	57	51
3rd Quintile												
Total Revenue[4]	**825**	**717**	**798**	**913**	**889**	**541**	**1,282**	**601**	**804**	**607**	**642**	**913**
State & Local	766	671	750	880	868	429	1,252	524	751	556	576	866
Federal	60	45	48	33	21	112	30	77	54	51	67	46
4th Quintile												
Total Revenue[4]	**799**	**740**	**771**	**946**	**841**	**520**	**1,177**	**630**	**759**	**572**	**647**	**885**
State & Local	754	670	727	892	815	405	1,153	527	705	492	575	830
Federal	45	69	44	54	25	115	24	103	34	80	72	55
5th Quintile												
Total Revenue[4]	**799**	**675**	**749**	**900**	**766**	**479**	**1,153**	**618**	**676**	**524**	**674**	**884**
State & Local	726	565	628	859	744	378	1,133	509	650	436	572	816
Federal	73	110	121	41	22	101	20	109	26	87	102	78

[1]Data is for 1969-70 school year and per pupil counts are Average Daily Membership.
[2]Quintiles are arranged in descending order of property valuation and contain approximately equal numbers of ADM. Districts over 5% of State ADM are excluded.
[3]State and local revenue does not add up to total revenue because revenues raised from intermediate sources (e.g., county taxes) are included in the total.
[4]Totals are derived from non-rounded numbers therefore, state and local may not add to total because of rounding.
Source: U.S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation.

TABLE 10

TOTAL REVENUE PER PUPIL, 1969-70
(Districts over 5% of state ADM)

	Quintile[1]	Total[2]	State & Local	Federal
***California[3]**				
Los Angeles Unified	1st	$976	$925	$51
***Colorado**				
Denver	1st	938	860	78
Colorado Springs	2nd	870	738	132
Jefferson County	3rd	781	758	23
***Kansas**				
Kansas City	2nd	770	660	110
Shawnee	3rd	681	658	23
Wichita	5th	887	820	67
Massuchusetts				
Boston	4th	1008	941	67
***Michigan[3]**				
Detroit	2nd	894	805	89
Mississippi				
Jackson Municipal Separate	1st	585	545	40
New York				
New York City	1st	$1320	$1222	$98
North Carolina				
Mecklenburg County Charlotte	2nd	713	672	41
Ohio				
Cleveland	1st	1092	1004	88
Texas				
Dallas	1st	627	594	33
Houston	2nd	596	566	30
Virginia				
Fairfax County	1st	920	772	148
Norfolk City	3rd	745	590	155
Washington[3]				
Seattle	1st	1039	987	52

[1]These districts are not included in the quintile sorting, but the quintile number indicates where their property valuation falls relative to the rest of the state.
[2]Totals are derived from non-reounde numbers therefore, state and local may not add to total because of rounding.
[3]State and local revenue include revenues raised from intermediate sources (e.g., county taxes).
[4]States which have reformed their basic aid systems since data in this table
Source: U.S. Census—Elsegis 1970 merged data file compiled by Syracuse University Research Corporation.

within states and in some instances aggravates them. This is not surprising since federal aid programs, with the exception of P.L. 874, have not been consciously designed to equalize property based differentials. Table 9 shows the range in the distribution of revenues by property valuation quintiles. In only six of the twelve states do districts with the least property valuation get appreciably more aid than those that are richest. In four states the district richest in valuation actually received more federal aid than the poorest, and throughout the range the relationships are thoroughly scattered.

The Role of Federal Aid in School Finance Reform

The impact of federal aid on state and local school finance, is often consistent with important principles of educational and fiscal equity. As demonstrated above, federal public school aid addresses issues and problems which traditionally have not always been given great emphasis at the state and local level. Moreover, federal aid to public schools tends to flow in the direction of the greatest concentrations of children from families with low income. The new state impetus toward school finance reform, however, raises important questions about the future federal role in educational funding, especially in equity matters.

Abolishing Federal Aid Inequities. One line of thinking about the federal role in educational finance implies that efforts should be made to eliminate features in existing federal programs which are clearly inconsistent with important principles of educational and fiscal equity that have been embodied in the legislative revisions recently enacted by at least eighteen states. For example, as approved by Congress in the Education Amendments of 1974, Section 5 (a)(2) of P.L. 874 for the first time allows for a systematic exception to a long standing provision of P.L. 874 which forbade states to treat School Assistance to Federally Affected Areas (SAFA) as local revenues in their own education aid formulas. Thus, reform states like New Mexico and Kansas now have the option to prevent local education agencies from receiving SAFA "windfalls" that are fiscally disequalizing. While the technical provisions implementing these intentions require definition and even some minor revision in the legislative language to make them fully effective, they clearly indicate a legislative intent to require states to have an equitable state aid law before they may deduct SAFA payments from a district's state aid. The definition of what constitutes an equitable law, has, as might be expected, been a matter of some controversy as regulations are developed to implement the measure.

Another example of the rising concern over federal aid inequities centers on the steps that might be taken to eliminate questionable practices in those federal aid programs that are distributed at the discretion of state education agencies. When the House General Education Subcommittee was considering the Education Amendments of 1974, it was determined to check the tendency of states to distribute discretionary federal aid in ways focusing neither on educational nor fiscal needs. Frequently, school districts that need the least fiscal assistance receive the greatest shares of discretionary federal programs. Under Section 403 (a)(4) of the 1974 Education Amendments, however, states are now required to distribute discretionary federal aid in consolidated library grants in ways that give priority to (1) school districts suffering from the handicaps of low tax base or (2) higher than average educational needs associated with poverty, bilingualism and sparsity (indicators which tend to identify large city and poor rural areas). While such a distributional formula does not act as a lever for shifting state and local funds, it does embody the kinds of reform goals that are parts of current school finance legislation.

General Aid. Another perspective about the future role of federal aid argues that the federal government should abandon its use of categorical grants and instead adopt a system of general education aid linked to reformed state aid programs. A proposal of this sort, for example, appeared in the President's 1972 State of the Union Message. And, indeed, the Department of Health, Education, and Welfare's School Finance Task Force began working with the White House to prepare a bill; and the Senate Select Committee on Equal Educational Opportunity prepared recommendations and a bill toward the same end. A combination of factors, however, defused the issue. First, staff working on proposals found the technical complexities more serious than they had anticipated and the likely costs higher than seemed feasible. Second, the report of the Advisory Commission on Intergovernmental Relations to whom the President had referred the question for study, concluded that property tax reform and school finance were state, not federal, matters. Probably most important, the Supreme Court *Rodriquez* decision removed the stimulus for prompt action. But as we shall discuss below, while the pressure for quick action has eased at the federal level, the question of a larger federal role in school finance is and will continue to be under consideration.

Stimulating State Shool Finance Reform

A third view of the future federal role in school finance argues that Washington ought to assume a major responsibility for encouraging school finance reform in states which have major inequities in their educational funding mechanisms. Since 1973, at least nine proposals in this direction have been introduced in Congress. While all of these bills would provide additional federal aid to education contingent upon some degree of change in existing state finance patterns, the content and comprehensiveness of the requirements vary substantially. Some provide incentives for state reform action; at least one proposes to pay the entire cost of reform. Some provide unrestricted general aid, and others tie assistance to a complex set of educational requirements. Several of the bills are brief, broad-brush approaches, suggesting that they were intended primarily as vehicles for future study, a rationale for holding hearings, or simply as useful evidence of the sponsor's concern with the problem of school funding. Other bills, with complex provisions and precise formulations, reflect conscientious policy development and careful legislative drafting.

Behind this diversity lies a common goal: the attempt to encourage states to adopt central themes of the school finance reform movement. The first principle of the contemporary reform movement, fiscal neutrality as formu-

lated in the *Serrano* decision, is a requirement of several of these bills. For example, S. 1817 introduced by Senator Humphrey, required that qualifying states assure that school financing "shall be a function of the total taxable wealth of the state, and is not limited to the taxable wealth of the individual local educational agencies . . ."[6] Fiscal neutrality provisions are also found in S. 3797 (Bentsen), H.R. 5610 (Obey), H.R. 16 (Perkins), and S. 1537 (Pell).

A second element of these school finance bills aims to equalize spending within the states. Provisions to encourage intrastate equalization are contained in S. 1900 (Javits), S. 2414 (Mondale), S. 1537 (Pell), and H.R. 16 (Perkins).

A third strand is higher state assumption of educational cost, both to achieve a lessening of disparities in tax rates and expenditures among districts and to lessen reliance upon the local property tax. Bills aimed at these goals are prominent among the finance reform measures. S. 1900, introduced by Senator Javits, is described as "a bill to provide financial assistance to states to encourage states to assume greater financial responsibility for public elementary and secondary education . . . "[7]

Other bills with similar goals emphasize the shift to income from property taxes as a source of educational funding: S. 1817 (Humphrey) requires that the tax system of a qualifying state shall be "derived predominantly from state tax collections based upon the personal income of all persons resident in the state . . . "[8]

A fourth prominent feature of these measures is an attempt to assure that financial change will result in educational improvement as well. Thus to qualify for funding, several of these bills require that states must fulfill responsibilities such as 1) evaluating the effectiveness of educational programs,[9] 2) assessing educational needs, achievement, and services,[10] or 3) establishing and improving cost-benefit studies of educational programs and organizational alternatives.[11]

A final feature of finance reform is the recognition of special needs of certain types of pupils, curricula, or school districts. Both in distributing federal funds to the states and in requirements placed on the manner of state distributions to local education agencies, several bills embody "need" principles. An example of the former approach is found in S. 1539 introduced by Senator Pell. Federal authorizations to states are adjusted by the "weighted per pupil income" of a state. The weightings are familiar to those who have followed the work of the National Education Finance Project. Weightings must be added to the states' average daily membership: grades 7-9 (20%); grades 10-12 (40%); and kindergarten (30%). Weightings based on mental (90%) or physical (225%) handicaps, educational deprivation (100%); or specific learning disabilities (140%) must also be added.[12]

S. 3797 introduced by Senator Bentsen in 1974 and reintroduced in 1975 by both Bentsen and Congressman Hawkins (H.R. 3240) requires that state formulas include need principles in order to qualify for funding.

Instead of applying a specific set of weightings or cost factors, the bill requires that:

1) a state is eligible to receive a grant under this Act only if the state educational agency provides assurance that . . .
2) amounts commensurate with their needs are expended on children with greater educational needs, including, but not limited to, educationally disadvantaged, gifted, talented, handicapped, and vocational education students and;
3) amounts commensurate with the education costs are expended in local educational agencies within the state with greater costs, including cost attributable to sparsity of population, and high living costs.[13]

While none of these measures were enacted, (nor are they likely to be in the near future)[14] one small but potentially influential program did become law in 1974. Section 842 of PL 93-380 authorizes planning grants of $100,000 to $1,000,000 for state studies designed to increase the equalization in their school finance systems. Thus while "big money" has not been devoted to state school finance reform by Congress, some attention has been focused on the problem.

School Finance Reform and Federal Aid: How Do They Mesh?

Federal aid programs are an important element of new school finance plans adopted by reform states. Kansas, New Mexico, Maine, and North Dakota all consider federal impact aid payments as part of the basic state aid contribution to local school finance budgets. The Education Amendments of 1974 permit such a policy though the regulations to implement those provisions are still being drafted as of this writing. Drafters of new school finance plans in the affected states, however, indicate that without such fiscal coordination, impact aid would be given to "poor" districts that already receive considerable state aid. This is most notable in selected districts in Kansas and New Mexico which already receive an extremely high level of support under their basic state aid program. This contrasts with the situation in other states where impact aid flows to very wealthy jurisdictions, particularly the suburban counties surrounding Washington, D.C., which receive comparatively little state aid but which also have an extremely high property wealth base by which to support local school expenditures.

Impact aid seems to be particularly important for new state aid programs. If it cannot be coordinated with new state aid laws which send substantial money to property poor districts, these areas will be receiving "windfall" monies under the two programs. The poor district with federal impact aid will be doing better than the one without. Moreover, wealthier school jurisdictions will receive federal aid that simply cannot be justified on the basis of the comparative wealth of the school district.

In other areas, other programs of Federal aid seems to be considerably more equalizing than impact aid. Title I aid flows mainly to urban areas and to rural areas with low income populations. Such aid is particularly important if new state aid programs do not compensate those areas for concentrations of disadvantaged pupils or low-income populations. Yet, when state aid programs have features that take these factors into account—as Minnesota and Illinois do with their emphasis on additional money for districts with high concentrations of Title I pupils—state aid will augment Federal aid flows to districts with very

pressing educational needs. In short, the two main components of Federal elementary and secondary education aid—impact aid and Title I ESEA aid—can be effectively coordinated with state aid to provide a higher degree of fiscal equity than might occur when these aids are disbursed in separate directions.

Though more and more state legislatures are considering closer coordination of federal and state education aid programs, there still is not a very close fit between these subsidies. Correlations between federal and state disbursements are very low in several reform states, particularly Wisconsin and Florida (Table 11) though they are closely parallel in New Mexico and Kansas where impact aid is closely related to state aid payments. In most cases, state aid programs have initially concentrated on removing property wealth inequities in their school finance systems. In those cases, federal and state aid flows bear little relationship to one another (Table 12). However, as state aid formulas reflect income measures of wealth and disburse aid according to educational needs, there may be closer conformance between the two types of subsidies. As this occurs, an even stronger case may be made for general federal aid to the states. In short, many of the new features of major state school finance reforms may preclude the time-honored and possibly outworn federal emphasis on categorical grants for education.

TABLE 11

CORRELATION COEFFICIENTS, STATE AND FEDERAL AID, SELECTED REFORM STATES

State /Year	State Operating Aid	Valuation Per Pupil
Florida/Federal Aid 1973-74	-.068	-.108
New Mexico/Federal Aid 1974-75	.763*	-.082
Wisconsin/Federal Aid 1973-74	.041	.048

*significant at the .01 level of confidence

Source: NCSL computations from State school finance data sources.

Summary Conclusions

Federal aid, while not a significant part of overall educational finances, exerts a considerable influence on state-local funding policies, particularly in the area of aid to the educationally and economically disadvantaged.

Federal education aid, mainly because of the Title I ESEA program, flows mainly to poor states and communities, particularly hard-pressed central cities and poor rural areas. Where states can exercise discretion in allocating federal aid, aid distributions tend to follow the

TABLE 12

STATE & FEDERAL AIDS BY SELECTED DISTRICTS OF FOUR STATES: 1973-74

State/District	Property Valuation Per Pupil*	Local Tax Per Pupil	Federal Aid Per Pupil	State Aid Per Pupil	State Operating Aid Per Pupil
Florida					
Bradford	$21211	$ 151	$ 26	$805	$768
Seminole	29051	216	9	580	556
Duval	33179	254	36	609	585
Santa Rose	46275	227	34	604	577
Palm Beach	78419	595	13	432	406
Illinois					
E. St. Louis	5831	175	172	491	437
Elgin	16528	716	21	640	529
Chicago	18820	669	100	384	333
W. Aurora	23216	1186	17	416	343
Elmhurst	37051	818	10	371	306
Winnetka	48989	2195	7	254	209
New Mexico					
Bernalillo	5231	60	163	700	631
Los Alamos	7871	77	645	534	491
Albuquerque	9528	108	32	730	689
Carlsbad	17775	208	45	728	663
Dulce	30536	339	364	512	234
Wisconsin					
Somerset	24461	435	19	799	763
S. Milwaukee	37825	713	12	558	537
Wales	41669	794	38	537	475
Ripon	43441	742	23	478	442
La Crosse	55113	831	43	278	227

*districts ranked by property valuation per pupil

Source: NCSL computations from State school finance data sources.

general pattern of distribution contained in the basic aid formula of the state. When the state has an equalizing formula this can enhance the overall equity of a state's school finance system.

Although both state and federal educational aid flows can be equalizing in nature, they have somewhat different distributional patterns. State aid is largely based on variations in property wealth per pupil. Federal aid, on the other hand compensates largely for variations in family income. Closer coordination of federal and state aid distribution policy may then require more consideration of better wealth measures to assess the relative wealth or poverty of an individual school district if fiscal equalization policies are to be consistent with one another.

Federal interest in promoting and sustaining state school finance reform has temporarily peaked with the advent of the *Rodriquez* decision. Yet, the movement to provide interstate school finance equalization will continue to stimulate national debate for many years to come. It will do so for several reasons. First, there are still major inequities in equal educational opportunities on an interstate basis. Secondly, equalizing federal general educational aid can help both poor and rich states sustain the funding of finance reform laws after they have been passed. Finally, general aid support would move the federal government away from the stance of providing, with the exception of Title I, marginal educational funding for programs that later become a major state-local fiscal burden and which sometimes can strain the ability of a state to adequately fund its own equalizing general aid formulae.

Because of the interrelationships new state school finance reforms and recent potential developments in federal aid to education, those who think about the future of the financing of public education in America must give greater consideration to the fit between these two systems of providing financial support for public education. With the broadening focus among the states on increasing the sensitivity of school funding plans to educational and fiscal needs and the emerging encouragement of state school finance reform on the part of the federal government, the goals of state and federal school funding provisions may be converging. If that trend continues and accelerates, policy planners at both levels of government will no longer be able to avoid the responsibility of coordinating and integrating intergovernmental aid flows.

FOOTNOTES

[1]Marilyn Gittell, *Six Urban School Districts* (New York: Praeger, 1968), p. 124.

[2]David C. Porter, David Marner, and Teddi Porter, "The Politics of Budgeting Federal Aid: Resource Mobilization by Local School Districts," A Report prepared for the SURB Policy Institution under Ford Foundation Gran. No. 690-0506A, January, 1973 pp. 132-133.

[3]See Joel Berke et. al. *Federal Aid to Education.* (Lexington: D.C. Heath and Co., 1972) for a description of such discretionary programs.

[4]The sample is drawn from the 1969-70 ELSEGIS III B Survey of Elementary and Secondary Education. Supplemental data is derived from the 1970 Census of Population and Housing.

[5]The proxy for poverty employed in this study is percent of related children in poverty families. Constructed from data in the 1970 U.S. Census of Population.

[6]Section 307(2)(e)(ii).

[7]S. 1900, Section 1

[8]S. 1817 Section 307(g)(2)(e)(iii).

[9]S. 2414, Mondale, Section 105(a)(2)(A); S. 1539, Pell, Section 403 (a)(1)(B); H.R. 16, Perkins, Section 104(a)(2)(A).

[10]S. 1817, Humphrey, Section 307(a)(2)(G).

[11]S. 1900, Javits, Section 6(a)(7).

[12]National Education Finance Project. *Status and Impact of Educational Programs*, Vol. 4 (Gainesville, Florida: The Project, 1971).

[13]Bentsen, S. 3797, Section 2(b).

[14]For a detailed analysis of the nine proposals, see Educational Research Policy Institute, Educational Testing Service, "The Federal Role and the Federal Strategies: Analysis of Congressional Proposals to Promote Interstate School Finance Equity" Washington, D.C.: Educational Policy Research Institute of the Educational Testing Service, 1975 (single copies available, 1527 New Hampshire Avenue, N.W., Washington, D.C. *20036)* See also Education Commission of the States (ECS), "Federal Options in Educational Finance Reform, Report #54 (Denver, June 1974)

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APPENDIX A

Selected Statistical Data on School Finance Revisions for Florida, Illinois, Kansas, Michigan, New Mexico, Utah and Wisconsin

from
NCSL-LEAP Data Files

TABLE F-1

FLORIDA SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF AUXILIARY SERVICES PER ADM FY 1974 BY RANK OF CURRENT EXPENDITURE NET OF AUXILIARY SERVICES PER ADM FY 1973

Non-cumulative Percent of School Districts by Rank Order (N = 67)	Average Current Expenditure Net of Auxiliary Services Per ADM* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADM FY 1974
Total	$ 800	12.8%	$ 876	12.9%	22767
0 to 10 %	659	5.6	750	7.3	12055
11 to 25	726	2.1	786	5.5	13058
26 to 50	760	1.4	848	3.9	28742
51 to 75	813	2.8	883	6.8	24909
76 to 90	884	2.1	978	6.3	37231
91 to 100	1028	10.2	1066	17.5	4344

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data*, Report for FY 73 and FY 74. "Current Expenditure" includes the following functions: day school administration, instruction, plant operation, plant maintenance, and fixed charges.
**Coefficient of variation.

TABLE F-2

FLORIDA SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF AUXILIARY SERVICES PER ADM FY 1973 AND FY 1974 BY RANK OF EQUALIZED VALUATION PER ADM FY 1974

Non-cumulative Percent of School Districts by Rank Order (N = 67)	Average Equalized Valuation 1973 Per ADM FY 1974**	Average Current Expenditure Net of Auxiliary Services Per ADM* FY 1973 Amount	FY 1973 Variation Index***	FY 1974 Amount	FY 1974 Variation Index***	Average ADM FY 1974
Total	$43289	$800	12.8%	$ 876	12.9%	22767
0 to 10 %	16872	749	12.6	794	14.6	8649
11 to 25	24496	820	17.4	890	21.0	6059
26 to 50	31714	788	9.1	874	6.1	26226
51 to 75	44735	780	15.0	828	8.5	16556
76 to 90	64510	821	7.1	930	8.1	57341
91 to 100	98764	886	9.4	1002	11.4	17261

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data*, Report for the Fiscal Year, 1973, 1974. "Current Expenditure" includes the following functions: day school administration, instruction, plant operation, plant maintenance, fixed charges.
**State of Florida, Office of the Auditor General certified ratios of the 1973 non-exempt real property assessed ratios to full value.
***Coefficient of variation.

TABLE F-3

FLORIDA SCHOOL DISTRICTS: STATE OPERATING AID PER ADM FY 74 BY DECILE OF STATE OPERATING AID PER ADM FY 1973

Non-Cumulative Percent of School Districts by Rank (N = 67)	Average State Operating Aid Per ADM* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADM FY 1974
Total	$504	20.0%	$525	28.2%	22767
0 to 10%	343	9.3	254	74.0	34325
11 to 25	414	3.4	425	19.3	37617
26 to 50	482	3.7	546	9.0	24479
51 to 75	528	2.8	561	12.3	23979
76 to 90	581	3.3	621	7.2	6606
91 to 100	715	13.4	690	23.8	3186

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data*, Report for FY 1973 and FY 1974. FY 1974 is State Foundation Program exclusive of capital outlay, debt service and transportation aid. FY 1973 is total State FTE allocation less homestead exemption, tax loss, occupational specialist allocation, elementary counselor allocation, and transportation.

**Coefficient of variation.

TABLE F-4

FLORIDA SCHOOL DISTRICTS: STATE OPERATING AID PER ADM FY 1973 AND FY 1974 BY RANK OF EQUALIZED VALUATION 1973 PER ADM 1974

Non-Cumulative Percent of School Districts by Rank Order (N = 67)	Average Equalized Valuation 1973 Per ADM FY 1974**	Average State Operating Aid Per ADM* FY 1973 Amount	FY 1973 Variation Index***	FY 1974 Amount	FY 1974 Variation Index***	Average ADM FY 1974
Total	$43289	$504	20.0%	$525	28.2%	22767
0 to 10%	16872	576	12.3	658	7.6	8649
11 to 25	24496	577	1.4	644	18.2	6059
26 to 50	31714	536	9.0	585	6.5	26226
51 to 75	44735	502	21.5	507	12.4	16556
76 to 90	64510	431	11.6	427	20.1	57341
91 to 100	98764	339	10.6	219	80.8	17261

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data*, Report for FY 1973 and FY 1974. FY 1974 is state foundation program exclusive of capital outlay, debt service and transportation aid. FY 1973 is total state FTE allocation less homestead exemption, tax loss, occupational specialist allocation, elementary counselor allocation, and transportation.

**State of Florida, office of the auditor general, *Certified Ratios of the 1973 Non-Exempt Real Property Assessment Rolls to Full Value.*

****Coefficient of variations.*

TABLE F-5

FLORIDA SCHOOL DISTRICTS: SCHOOL TAX RATES, FY 1974 BY RANK OF SCHOOL TAX RATES, FY 1973

Non-Cumulative Percent of School Districts by Rank Order (N = 67)	Average School Tax Rate* per $1000 Equalized Valuation** FY 1973 Amount	FY 1973 Variation Index***	FY 1974 Amount	FY 1974 Variation Index***	Average ADM FY 1974
Total	$ 9.47	9.5%	$9.24	11.9%	22767
0 to 10%	7.45	7.2	8.10	15.2	2578
11 to 25	8.59	4.1	9.00	16.3	10920
26 to 50	9.73	3.8	9.33	10.3	23601
51 to 75	10.00	0.0	9.67	6.0	38825
76 to 90	10.00	0.0	9.35	12.4	29591
91 to 100	10.14	3.4	9.31	11.9	6832

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data* Report for FY 1974.

**State of Florida, Office of the Auditor General, certified ratios of the 1973 non-exempt real property assessment ratios to full value.

***Coefficient of variation.

TABLE F-6

FLORIDA SCHOOL DISTRICTS: SCHOOL OPERATING TAX RATES FY 1973 AND FY 1974 BY RANK OF EQUALIZED VALUATION 1973 PER ADM 1974

Non-Cumulative Percent of School Districts by Rank Order (N = 67)	Average Equalized Valuation 1973 Per ADM FY 1974**	Average Operating School Tax Rate* FY 1973 Amount	FY 1973 Variation Index***	FY 1974 Amount	FY 1974 Variation Index***	Average ADM FY 1974
Total	$43289	$9.47	9.5%	$9.24	11.9%	22767
0 to 10%	16872	9.54	6.5	9.86	7.7	8649
11 to 25	24496	8.81	14.9	9.19	12.7	6059
26 to 50	31714	9.60	8.7	9.19	14.9	26226
51 to 75	44735	9.54	12.3	9.10	8.9	16556
76 to 90	64510	9.78	7.6	9.53	5.6	57341
91 to 100	98764	9.38	8.5	8.67	16.7	17261

*State of Florida, Commissioner of Education, *Pupil, Personnel and Financial Data*, Report for the fiscal year, 1974.
**State of Florida, Office of the Auditor General, *Certified Ratios of the 1973 Non-Exempt Real Property Assessment Rolls to Full Value.*
***Coefficient of variation.

TABLE F-7

FLORIDA SCHOOL DISTRICTS: EQUALIZED VALUATION 1972 PER ADM FY 1973 AND EQUALIZED VALUATION 1973 PER ADM FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 67)	Average Equalized Valuation per ADM* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADM FY 1974
Total	$34256	48.2%	$43289	54.1%	22767
0 to 10%	14131	2.4	16872	15.2	8649
11 to 25	20865	7.1	24496	7.5	6059
26 to 50	25860	7.5	31714	6.7	26226
51 to 75	36711	12.8	44735	12.6	16556
76 to 90	49919	8.9	64510	10.7	57341
91 to 100	70776	19.4	98764	16.9	17261

*State of Florida, Office of the Auditor General Certified Ratios of the 1972 and 1973 Non-Exempt Real Property Assessment Ratios to Full Value.
**Coefficient of variation.

TABLE I-1

ILLINOIS UNIFIED SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADA FY 1974 BY DECILE OF CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADA FY 1973*

Decile (N=436)	Average Current Expenditure Net of Transportation per ADA FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$ 992	15.2%	$1,079	16.2%	2,844
1	808	3.8	898	8.2	1,275
2	858	1.0	939	5.3	1,339
3	890	1.0	971	5.2	1,447
4	916	0.9	990	5.4	1,446
5	946	1.4	1,042	4.8	1,478
6	983	0.9	1,081	6.2	2,087
7	1,011	0.9	1,099	7.1	1,502
8	1,053	1.6	1,139	7.5	1,961
9	1,114	2.0	1,201	5.4	3,293
10	1,291	14.3	1,383	18.7	11,411

*State of Illinois, Office of Public Instruction, special computer tape tabulation for NCSL of *Annual Financial Report* and related data. "Current expenditure" includes current outlays for the following functions in all funds except transportation fund: administration, instruction, attendance, health, operation, maintenance, fixed charges and textbooks.
**Coefficient of variation.

TABLE I-2

ILLINOIS UNIFIED SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADA FY 1973 AND FY 1974 BY DECILE OF ASSESSED VALUATION 1972 PER ADA FY 1974*

		Average Current Expenditure Net of Transportation per ADA				
		FY 1973		FY 1974		
Decile (N=436)	Average Assessed Valuation 1972 per ADA FY 1974	Amount	Variation Index	Amount	Variation Index	Average ADA FY 1974
Total	$26,707	$ 992	15.2%	$1,079	16.2%	2,844
1	10,193	910	11.2	999	12.2	1,821
2	15,162	912	10.4	1,001	13.6	2,140
3	17,970	923	8.3	986	9.1	2,485
4	20,566	936	16.2	1,001	10.6	2,575
5	22,732	969	12.4	1,058	13.3	2,185
6	25,025	978	10.4	1,065	10.0	2,560
7	27,955	1,030	12.7	1,110	13.7	12,638
8	31,698	1,035	9.6	1,118	5.1	920
9	37,227	1,038	10.6	1,134	11.1	665
10	54,687	1,162	20.1	1,290	22.6	565

*State of Illinois, Office of Public Instruction, special computer tape tabulation for NCSL of *Annual Financial Report* and related data. "Current expenditure" includes current outlays for the following functions in all funds except transportation: administration, instruction, attendance, health, operation, maintenance, fixed charges, and textbooks.

**Coefficient of variation.

TABLE I-3

ILLINOIS UNIFIED SCHOOL DISTRICTS: STATE GENERAL AID PER ADA FY 1974 BY DECILE OF STATE GENERAL AID PER ADA FY 1973*

	Average State General Aid per ADA				
	FY 1973		FY 1974		
Decile (N=436)	Amount	Variation Index**	Amount	Variation Index**	Average ADA FY 1974
Total	$410	31.7%	$407	38.6%	2,844
1	150	24.6	145	35.1	562
2	266	9.8	229	34.1	644
3	332	4.5	316	36.1	1,259
4	370	2.7	364	19.2	1,124
5	403	2.2	420	16.2	1,817
6	440	2.2	448	14.7	13,752
7	466	1.7	454	12.6	1,483
8	498	1.8	501	12.8	3,454
9	539	2.6	536	12.7	2,835
10	604	6.1	626	13.1	1,669

*State of Illinois, Office of Public Instruction, special computer tape tabulation for NCSL of *Annual Financial Report* and related data. "State General Aid" includes all State General Aid receipts regardless of local fund allocation.

**Coefficient of variation.

TABLE I-4

ILLINOIS UNIFIED SCHOOL DISTRICTS: STATE GENERAL AID PER ADA FY 1973 AND FY 1974 BY DECILE OF ASSESSED VALUATION 1972 PER ADA FY 1974*

Decile (N=436)	Average Assessed Valuation 1972 per ADA FY 1974	Average State General Aid per ADA FY 1973 Amount	FY 1973 Variation Index**	Average State General Aid per ADA FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$26,707	$416	31.7%	$407	38.6%	2,844
1	10,193	598	7.4	650	10.6	1,821
2	15,182	530	9.1	548	12.4	2,140
3	17,900	500	7.4	507	8.9	2,485
4	20,566	465	12.3	475	10.1	2,575
5	22,732	450	8.9	449	12.2	2,185
6	25,025	416	10.6	412	13.3	2,560
7	27,955	384	8.9	384	14.6	12,638
8	31,698	335	12.5	312	18.3	920
9	37,227	282	20.6	234	26.9	665
10	54,687	174	33.9	139	32.3	565

*State of Illinois, Office of Public Instruction, special computer tabulation for NCSL of *Annual Financial Report* and related data. "State General Aid" includes all State General Aid receipts regardless of local fund allocation.
**Coefficient of variation.

TABLE I-5

ILLINOIS UNIFIED SCHOOL DISTRICTS: SCHOOL OPERATING TAX RATES FY 1974 BY DECILE OF SCHOOL OPERATING TAX RATES FY 1973

Decile (N=436)	Average School Operating Tax Rate per $1000 Assessed Valuation FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$27.59	24.5%	$25.93	24.1%	2,844
1	18.47	10.6	22.19	33.6	1,046
2	21.68	2.7	23.08	20.9	1,264
3	23.23	1.6	25.13	23.9	12,537
4	24.50	1.3	25.08	23.1	1,153
5	25.46	1.1	24.61	16.3	2,281
6	26.51	1.7	25.86	21.7	1,553
7	28.04	1.5	26.74	20.2	1,571
8	29.98	2.7	27.17	19.8	1,888
9	33.19	4.4	28.90	26.7	2,274
10	41.75	13.4	29.90	18.7	2,866

*State of Illinois, Office of Public Instruction, special computer tabulation for NCSL of *Annual Financial Report* and related data. The Operating tax rate for FY 1973 was computed by dividing the sum (revised) of all 1972 taxes received after June 30, 1972, and all 1973 taxes received before July 1, 1973, by 1971 assessed valuation. The operating tax rate for FY 1974 was computed by dividing the sum of all 1973 taxes received after June 30, 1973, and all 1974 taxes received before July 1, 1974, by 1972 assessed valuation.
**Coefficient of variation.

TABLE I-6

ILLINOIS UNIFIED SCHOOL DISTRICTS: SCHOOL OPERATING TAX RATES FY 1973 AND FY 1974 BY DECILE OF ASSESSED VALUATION 1972 PER ADA FY 1974

Decile (N=436)	Average Assessed Valuation 1972 per ADA FY 1974	Average School Operating Tax Rate Per $1,000 Assessed Valuation* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$26,707	$27.50	24.5%	$25.93	24.1%	2,844
1	10,193	28.77	25.2	28.39	25.3	1,821
2	15,182	29.42	26.5	26.39	19.2	2,140
3	17,900	29.08	25.3	25.04	19.6	2,485
4	20,566	28.42	29.6	26.94	21.2	2,575
5	22,732	29.42	27.9	27.49	27.8	2,185
6	25,025	26.38	18.2	26.02	24.4	2,560
7	27,955	27.53	23.0	26.65	22.3	12,638
8	31,698	26.77	16.4	26.04	26.1	920
9	37,227	25.30	17.7	23.78	24.8	665
10	54,687	24.35	21.4	23.01	22.4	565

*State of Illinois, Office of Public Instruction, special computer tabulation for NCSL of *Annual Financial Report* and related data. The operating tax rate for FY 1973 was computed by dividing the sum (revised) of all 1972 taxes received after June 30, 1972, and all 1973 taxes received before July 1, 1973, by 1971 assessed valuation. The operating tax rate for FY 1974 was computed by dividing the sum of all 1973 taxes received after June 30, 1973 and all 1974 taxes received before July 1, 1974, by 1972 assessed valuation.

**Coefficient of variation.

TABLE I-7

ILLINOIS UNIFIED SCHOOL DISTRICTS: ASSESSED VALUATION 1972 PER ADA FY 1974 AND ASSESSED VALUATION 1971 PER ADA FY 1973*

Decile (N=436)	Average Assessed Valuation 1971 per ADA, FY 1973 Amount	1971 per ADA, FY 1973 Variation Index**	1972 per ADA, FY 1974 Amount	1972 per ADA, FY 1974 Variation Index**	Average ADA FY 1974
Total	$25,860	50.1%	$26,707	51.2%	2,844
1	9,987	22.7	10,193	22.3	1,821
2	14,721	7.5	15,182	7.8	2,140
3	17,806	3.6	17,900	3.2	2,485
4	20,011	2.8	20,566	3.5	2,575
5	21,987	3.0	22,732	2.8	2,185
6	24,411	2.4	25,025	2.8	2,760
7	27,133	4.0	27,956	4.1	12,638
8	30,738	4.4	31,698	3.8	920
9	35,918	5.1	37,227	5.9	665
10	52,214	30.0	54,687	30.2	565

*State of Illinois, Office of Public Instruction, special computer tabulation for NCSL of *Annual Financial Report* and related data.

**Coefficient of variation.

TABLE I-8

ILLINOIS UNIFIED SCHOOL DISTRICTS: WEIGHTED PUPILS RELATIVE TO UNWEIGHTED PUPILS FY 1973 AND FY 1974 BY DECILE OF ASSESSED VALUATION 1972 PER PUPIL FY 1974

Decile (N=436)	Average Assessed Valuation 1972 per ADA, FY 1974	Weighted Pupils Relative to Unweighted Pupils* FY 1973 Ratio	FY 1973 Variation Index**	FY 1974 Ratio	FY 1974 Variation Index**	Average ADA FY 1974
Total	$26,707	109.6	3.7%	116.4	7.1%	2,844
1	10,193	109.0	1.3	120.4	12.2	1,821
2	15,182	108.9	2.6	115.0	8.4	2,140
3	17,900	109.4	1.2	114.0	2.8	2,485
4	20,566	110.1	7.3	114.2	3.6	2,575
5	22,732	109.5	1.9	114.7	4.0	2,185
6	25,025	109.2	1.4	114.7	3.4	2,560
7	27,955	109.3	1.7	116.6	6.5	12,638
8	31,698	109.8	1.5	115.3	3.2	920
9	37,227	109.2	2.7	117.1	4.4	665
10	54,687	111.7	7.0	121.4	10.6	565

*State of Illinois, Office of Public Instruction, special computer tabulation for NCSL of *Annual Financial Report* and related data. "Weighted pupils" in FY 1973 is WADA and in FY 1974 is TWADA. "Unweighted pupils" in both FY 1973 and FY 1974 is ADA.
**Coefficient of variation.

TABLE K-1

KANSAS SCHOOL DISTRICTS: STATE AID PER PUPIL FY 74 BY DECILE OF STATE AID PER PUPIL FY 1973

Decile (N = 310)	Average State Aid Per Pupil* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Number of Pupils, FY 1974
Total	$211	25.9%	$336	33.9%	1488
1	92	31.5	131	68.7	420
2	156	7.7	236	52.1	2277
3	187	3.7	287	36.6	2654
5	204	1.5	294	32.7	900
6	216	1.9	331	35.6	1500
7	227	1.3	332	27.4	2975
8	237	1.3	377	17.5	1334
9	245	1.2	370	25.4	7713
10	261	2.3	396	15.9	1207

*State of Kansas, State Department of Education Data Processing Division.
**Coefficient of variation.

TABLE K-2

KANSAS SCHOOL DISTRICTS: STATE AID PER PUPIL FY 1973 AND FY 1974 BY DECILE OF ADJUSTED VALUATION PER PUPIL

Decile (N = 310)	Adjusted Valuation Per Pupil FY 1974	Average State Aid Per Pupil* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Number of Pupils 1974
Total	33431	$211	25.9%	$336	33.9%	1488
1	11252	232	15.1	434	16.6	3186
2	15713	235	15.3	416	14.4	4037
3	19195	231	15.6	378	21.4	2820
4	23134	232	12.9	365	19.2	1492
5	26433	247	16.6	367	22.9	776
6	29806	223	16.6	343	21.9	816
7	35051	217	16.1	314	23.2	556
8	41526	208	22.1	239	34.7	508
9	52760	167	27.5	110	57.3	305
10	78722	123	51.2	N/C	N/C	378

*State of Kansas, Department of Education Data Processing Division. Includes transportation aid.
**Coefficient of variation.

TABLE K-3

KANSAS SCHOOL DISTRICTS: GENERAL SCHOOL TAX RATE FY 1974 BY DECILE OF GENERAL SCHOOL TAX RATE, FY 1973

General School Tax Rate*

Decile (N = 310)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Number of Pupils, FY 1974
Total	$22.42	38.4%	$22.22	28.2%	1488
1	10.07	23.4	20.36	20.5	546
2	14.60	6.3	23.19	22.5	745
3	17.12	2.3	21.53	21.8	804
4	18.96	2.7	22.53	24.7	711
5	20.69	2.6	24.67	19.4	867
6	22.49	2.5	23.61	24.1	875
7	24.19	1.9	21.08	25.9	1631
8	25.98	2.3	21.02	25.9	1665
9	28.43	5.8	20.67	27.9	1058
10	40.67	21.4	23.61	49.9	5972

*State is Kansas, Department of Education Data Processing Division.
**Coefficient of variation.

TABLE K-4

KANSAS SCHOOL DISTRICTS: SCHOOL GENERAL TAX RATES FY 1973 AND FY 1974 BY DECILE OF ADJUSTED VALUATION PER PUPIL FY 1974

Average School General Tax Rate*

Decile (N = 310)	Average Adjusted Valuation Per Pupil FY 1974	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Number of Pupils FY 1974
Total	$33431	$22.42	38.4%	$22.22	28.2%	1488
1	11252	34.25	33.8	19.11	43.5	3186
2	15713	29.75	23.4	20.82	31.6	4037
3	19195	24.99	31.6	22.09	40.9	2820
4	23134	23.29	22.4	19.42	19.7	1492
5	26433	20.64	24.5	21.10	22.4	776
6	29806	20.99	25.6	21.74	25.4	816
7	35051	20.01	21.2	21.77	17.2	556
8	41526	19.48	25.3	24.96	16.6	508
9	52760	18.00	27.[illegible]	27.43	14.1	305
10	78722	[illegible]2.80	40.5	23.80	25.6	378

*State of Kansas, Department of Education Data Processing Division.
**Coefficient of Variation.

TABLE K-5

KANSAS SCHOOL DISTRICTS: ADJUSTED VALUATION PER PUPIL FY 1973 AND ADJUSTED VALUATION PER PUPIL FY 1974

Average Adjusted Valuation Per Pupil*

Decile (N = 310)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Number of Pupils FY 1974
Total	$29470	60.3%	$33431	61.0%	1488
1	10381	18.2	11252	17.2	3186
2	14333	4.7	15713	4.6	4037
3	17136	5.6	19195	5.5	2820
4	20145	6.0	23134	5.6	1492
5	23406	3.3	26433	3.2	776
6	26521	3.4	29806	4.2	816
7	30867	4.9	35051	4.9	556
8	36498	5.9	41526	5.6	508
9	46628	7.0	52760	9.4	305
10	68165	30.0	78722	27.0	378

*State of Kansas, Department of Education Data Processing Division.
**Coefficient of variation.

TABLE M-1

MICHIGAN K-12 SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1974 BY DECILE OF CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1973

Average Current Expenditure Net of Transportation Per Member[1]

Decile (N = 517)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership FY 1974[2]
Total	$ 987	36.0%	$1081	19.8%	4016
1	788	3.9	913	8.8	2595
2	840	1.1	938	4.5	2255
3	870	0.9	963	4.0	2771
4	897	0.8	998	4.9	2640
5	923	0.9	1022	4.3	3013
6	950	1.1	1057	6.2	3525
7	983	0.9	1099	4.5	3584
8	1023	1.3	1117	5.5	9201
9	1081	2.3	1198	5.3	5521
10	1446	63.0	1453	28.4	4926

[1]Includes summer school expense, but excludes all debts service and capital outlay. Source items 2100, 1100, 1200, 1300, 1400, 2200, 2300, 2500, 2600, 2700 of *Annual School District Financial Report*, divided by membership.
[2]K to 12 membership for aid purpose enrolled fourth Friday after Labor Day, FTE part-time pupils. Source: *Fourth Friday Membership Report*, 1972-73 and 1973-74.
**Coefficient of variation.

TABLE M-2

MICHIGAN K-12 SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1973 AND FY 1974 BY DECILE OF STATE EQUALIZED VALUATION 1974 PER MEMBER FY 1974

Average Current Expenditure Net of Transportation Per Member[2]

Decile (N = 517)	Average State Equalized Valuation 1974 Per Member FY 1974[1]	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership FY 1974[3]
Total	$22513	$ 987	36.0%	$1081	19.8%	4016
1	10336	909	12.9	1003	11.3	2168
2	13001	891	8.3	993	9.3	2277
3	14710	896	9.0	1003	7.9	2233
4	16147	911	8.3	1016	10.2	2858
5	17571	959	13.3	1069	13.6	3624
6	19491	959	13.7	1053	12.6	4232
7	22081	967	12.7	1074	12.5	8796
8	25156	986	14.9	1094	14.9	6823
9	30972	1031	12.5	1118	11.9	4105
10	51718	1314	71.8	1348	32.9	3161

[1]Special tabulation for NCSL by Michigan Department of Education, May 1975, divided by membership.
[2]See footnote 1, Table M-1.
[3]See footnote 2, Table M-1.
**Coefficient of variation.

TABLE M-3

MICHIGAN K-12 SCHOOL DISTRICTS: STATE OPERATING AID PER MEMBER FY 1974 BY DECILE OF STATE OPERATING AID PER MEMBER FY 1973

	Average State Operating Aid Per Member[1]				
	FY 1973		FY 1974		
Decile (N = 517)	Amount	Variation Index**	Amount	Variation Index**	Average Membership FY 1974[2]
Total	$430	36.0%	$475	40.8%	4016
1	94	60.6	104	14.7	4416
2	264	11.7	253	24.9	4073
3	341	4.4	357	15.7	5559
4	390	3.6	438	11.6	5169
5	437	2.5	495	7.3	9459
6	472	1.9	523	12.4	3572
7	502	2.0	569	6.3	2636
8	536	1.7	594	6.6	2177
9	572	1.9	643	8.2	2208
10	645	7.9	717	19.2	1266

[1]*State School Aid*, item 0312 of *Annual School District Financial Report*, divided by membership.
[2]See footnote 2, Table M-1.
**Coefficient of variation.

TABLE M-4

MICHIGAN K-12 SCHOOL DISTRICTS: STATE OPERATING AID PER MEMBER FY 1973 AND FY 1974 BY DECILE OF STATE EQUALIZED VALUATION 1974 PER MEMBER FY 1974

		Average State Operating Aid per Member[2]				
		FY 1973		FY 1974		
Decile (N = 517)	Average State Equalized Valuation FY 1974[1] per Member, FY 1974[1]	Amount	Variation Index**	Amount	Variation Index**	Average Membership FY 1974[3]
Total	$22513	$430	36.0	$475	40.8%	4016
1	10336	613	9.8	691	19.7	2168
2	13001	572	7.5	639	11.9	2277
3	14710	535	9.0	611	10.6	2233
4	16147	509	7.7	576	10.7	2858
5	17571	495	15.6	568	18.1	3624
6	19491	448	15.2	500	11.2	4232
7	22061	404	10.6	450	11.8	8796
8	25156	356	12.3	379	16.4	6823
9	30972	273	22.0	256	24.6	4105
10	51718	132	74.0	104	79.8	3161

[1]See footnote 1, Table M-2.
[2]See footnote 1, Table M-3.
[3]See footnote 2, Table M-1.
**Coefficient of variation.

TABLE M-5

MICHIGAN K-12 SCHOOL DISTRICTS: SCHOOL OPERATING TAX RATE FY 1974 BY DECILE OF SCHOOL OPERATING TAX RATE FY 1973

	Average School Operating Tax Rate per $1000 State Equalized Valuation[1]				
	FY 1973		FY 1974		
Decile (N = 517)	Amount	Variation Index**	Amount	Variation Index**	Average Membership FY 1974[2]
Total	$22.85	20.9%	$23.43	18.2%	4016
1	14.98	11.7	18.21	19.9	7043
2	17.88	3.1	19.63	9.2	1801
3	19.46	2.4	20.57	6.4	1671
4	20.64	1.7	21.38	8.1	2200
5	21.72	1.2	21.94	5.7	2157
6	22.85	1.5	23.03	7.3	3398
7	24.06	1.6	24.22	5.0	3437
8	25.58	1.9	25.53	5.4	3756
9	27.76	2.8	27.34	4.4	6423
10	31.59	6.6	31.35	7.9	7762

[1]*Annual School District Financial Report. Form B Supplement—Tax Collection Statutes, column 6, line 1 divided by 1974 equalized valuation (SEV) for 1974; and line 4 divided by 1973 SEV for 1973.*
[2]See footnote 2, Table M-1.
**Coefficient of variation.

TABLE M-6

MICHIGAN K-12 SCHOOL DISTRICTS: SCHOOL OPERATING TAX RATE FY 1974 BY DECILE OF STATE EQUALIZED VALUATION 1974 PER MEMBER FY 1974

		Average School Operating Tax Rate per $1000 Equalized Valuation[2]				
		FY 1973		FY 1974		
Decile (N = 517)	Average State Equalized Valuation Per Member FY 1974[1]	Amount	Variation Index**	Amount	Variation Index**	Average Membership FY 1974[3]
Total	$22513	$22.85	20.9%	$23.43	18.2%	4016
1	10336	21.37	27.1	22.56	20.5	2168
2	13001	21.73	18.4	22.03	15.9	2267
3	14710	21.30	18.0	22.26	15.8	2233
4	16147	22.74	17.4	23.02	15.5	2858
5	17517	24.61	17.6	24.47	17.2	3624
6	19491	24.13	21.2	24.29	18.6	4232
7	22061	23.67	21.4	24.34	18.3	8796
8	25156	23.84	21.8	24.22	19.9	6823
9	30972	23.02	20.1	24.12	17.5	4105
10	51718	22.09	19.8	23.04	19.0	3161

[1]See footnote 1, Table M-2.
[2]See footnote 1, Table M-5.
[3]See footnote 2, Table M-1.
**Coefficient of Variation.

TABLE M-7

MICHIGAN K-12 SCHOOL DISTRICTS: STATE EQUALIZED VALUATION 1974 PER MEMBER FY 1974 BY DECILE OF STATE EQUALIZED VALUATION 1973 PER MEMBER FY 1973

Average State Equalized Valuation Per Member[1]

Decile (N = 517)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership FY 1974[2]
Total	$20899	81.3%	$22513	62.2%	4016
1	9348	17.8	10336	18.1	2168
2	11803	3.4	13001	4.0	2277
3	13271	3.8	14710	3.6	2233
4	14733	2.2	16147	2.2	2858
5	15889	2.5	17571	2.4	3624
6	17607	3.5	19491	3.8	4232
7	20027	3.9	22061	3.8	8796
8	22974	4.8	25156	4.7	6823
9	28373	7.6	30972	8.1	4105
10	50852	71.7	51718	42.7	3161

[1]See footnote 1, TableM-2.
[2]See footnote 2, Table M-1.
**Coefficient of variation.

TABLE N-1

NEW MEXICO SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADM FY 1975 BY RANK OF CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADM FY 1974

Current Expenditure Per ADM*

Non-Cumulative Percent of School Districts by Rank (N = 88)	FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$889	23.8%	$1022	25.0%	3116
0 to 10%	687	4.2	803	5.2	5561
11 to 25	722	1.1	844	3.7	10162
26 to 50	765	2.2	871	6.4	2177
51 to 75	872	7.5	828	24.9	1557
76 to 90	1105	4.9	1282	11.0	647
91 to 100	1358	9.1	1566	7.3	162

*State of New Mexico, Department of Finance and Administration Statistics: *Public School Finance*, 1973-74.
**Coefficient of variation.

TABLE N-2

NEW MEXICO SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER ADM FY 1974 AND FY 1975 BY RANK OF ASSESSED VALUATION 1973 PER ADM FY 1975

Average Expenditure Net of Transportation Per ADM*

Non-Cumulative Percent of School Districts by Rank (N = 88)	Average Assessed Valuation 1973 per ADM FY 1975	FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$18067	$ 889	23.8%	$1022	24.9%	3116
0 to 10%	3663	760	5.5	869	5.9	2079
11 to 25	6721	776	10.8	847	5.7	5209
26 to 50	9768	805	18.1	922	19.0	6029
51 to 75	16925	908	21.6	1067	22.5	1591
76 to 90	27811	1032	26.6	1219	25.4	1067
91 to 100	57861	1126	20.2	1277	21.8	693

*State of New Mexico, Department of Finance and Administration, *Statistics: Public School Districts*, 1973-74. Includes the following functions: Administration, instruction, attendance, health, plant operation, plant maintenance and fixed charges.
**Coefficient of variation.

TABLE N-3

NEW MEXICO SCHOOL DISTRICTS: STATE BASIC PROGRAM AID PER ADM FY 1975 BY RANK OF STATE OPERATING AID PER ADM FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 88)	Basic Program Aid Per ADM* FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$566	30.4%	$ 766	33.9%	3116
0 to 10%	456	.9	630	13.0	14368
11 to 25	463	.2	617	25.4	6053
26 to 50	475	1.3	682	18.0	2189
51 to 75	513	4.3	670	31.8	619
76 to 90	693	11.5	993	21.2	249
91 to 100	996	12.2	1233	14.6	128

*State of New Mexico, Department of Finance and Administration, *Statistics: Public School Districts*, 1973-74.
**Coefficient of variation.

TABLE N-4

NEW MEXICO SCHOOL DISTRICTS: STATE BASIC PROGRAM AID PER ADM FY 1974 AND FY 1975 BY RANK OF ASSESSED VALUATION 1973 PER ADM FY 1975

Non-Cumulative Percent of School Districts by Rank (N = 88)	Average Assessed Valuation FY 1973 per ADM FY 1975	Average Basic Program Aid Per ADM* FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$ 18067	$566	30.4%	$766	33.9%	3116
0 to 10%	3663	478	3.1	753	12.4	2079
11 to 25	6721	470	2.3	677	15.5	5209
26 to 50	9768	518	17.0	764	23.4	6029
51 to 75	16925	597	27.3	858	33.0	1591
76 to 90	27811	690	37.4	859	42.7	1067
91 to 100	57861	659	38.4	557	59.8	693

*State of New Mexico, Department of Finance and Administration, *Statistics: Public School Districts*, 1973-74.
**Coefficient of variation.

TABLE N-5

NEW MEXICO SCHOOL DISTRICTS: DISTRICT LEVY FY 1975 BY RANK OF DISTRICT LEVY FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 88)	Average District Levy Per $1000 Assessed Valuation* FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$4.12	19.2%	$10.73	12.0%	3116
0 to 10%	2.22	0.0	9.17	8.1	4639
11 to 25	3.67	28.3	10.45	10.1	9516
26 to 50	4.45	0.0	11.15	0.0	1488
51 to 75	4.45	0.0	10.70	19.9	1656
76 to 90	4.45	0.0	11.15	0.0	1808
91 to 100	4.57	5.3	11.15	0.0	1782

*State of New Mexico Department of Finance and Administration, *Statistics: Public School Finance*, 1973-74.
**Coefficient of variation.

TABLE N-6

NEW MEXICO SCHOOL DISTRICTS: DISTRICT LEVY FY 1974 AND FY 1975 BY RANK OF ASSESSED VALUATION 1973 PER ADM FY 1975

Non-Cumulative Percent of School Districts by Rank (N = 88)	Average Assessed Valuation 1973 Per ADM FY 1975	District Levy Per $1000 Assessed Valuation* FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$18067	$4.12	19.2%	$10.73	12.0%	3116
0 to 10%	3663	4.45	0.0	11.15	0.0	2079
15 to 25	6721	3.94	24.8	9.87	28.3	5209
26 to 50	9768	4.04	21.7	10.74	8.2	6029
51 to 75	16925	4.15	18.9	10.98	6.0	1591
76 to 90	27811	3.86	25.2	10.64	9.2	1067
91 to 100	57861	4.57	5.3	11.15	0.0	693

*State of New Mexico, Department of Finance and Administration, *Statistics: Public School Districts*, 1973-74.
**Coefficient of variation.

TABLE N-7

NEW MEXICO SCHOOL DISTRICTS: AVERAGE ASSESSED VALUATION 1972 PER ADM FY 1974 AND AVERAGE ASSESSED VALUATION 1973 PER ADM FY 1975

Non-Cumulative Percent of School Districts by Rank (N = 88)	Average Assessed Valuation Per ADM* FY 1974 Amount	FY 1974 Variation Index**	FY 1975 Amount	FY 1975 Variation Index**	Average ADM FY 1975
Total	$16207	93.2%	$18067	96.4%	3116
0 to 10%	3104	29.2	3663	33.2	2079
11 to 25	5379	84.1	6721	10.7	5209
26 to 50	9267	14.7	9768	18.0	6029
51 to 75	14950	14.4	16925	17.0	1591
76 to 90	24942	9.8	27811	11.1	1067
91 to 100	50823	43.9	57861	45.0	693

*State of New Mexico, Department of Finance and Administration, *Statistics: Public School Districts*, 1973-74.
**Coefficient of variation.

TABLE U-1

UTAH SCHOOL DISTRICTS: STATE AND LOCAL CURRENT REVENUES PER ADA FY 1974 BY RANK OF STATE AND LOCAL CURRENT REVENUES PER ADA FY 1973

Non-Cumulative Percent of School Districts by Rank (N = 40)	Current Revenues Per ADA* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$ 701	20.5%	$ 782	23.4%	6572
0 to 10%	565	5.8	625	10.6	13819
11 to 25	593	0.8	674	1.9	7264
26 to 50	619	1.9	680	2.9	11264
51 to 75	691	3.6	747	6.7	4601
76 to 90	834	10.3	944	14.5	711
91 to 100	1031	3.9	1203	6.9	280

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74.
**Coefficient of variation.

TABLE U-2

UTAH SCHOOL DISTRICTS: STATE AND LOCAL CURRENT REVENUES PER ADA FY 1973 AND FY 1974 BY RANK OF ASSESSED VALUATION 1973 PER ADA FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 40)	Average Assessed Valuation 1973 Per ADA FY 1974	State & Local Current Revenues Per ADA* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$10217	$701	20.5%	$782	23.4%	6572
0 to 10%	4871	613	8.8	690	9.9	14201
11 to 25	6298	598	2.8	674	2.7	14674
26 to 50	8107	577	22.2	834	23.0	3974
51 to 75	10974	670	17.2	740	22.2	4455
76 to 90	14320	753	11.4	842	17.6	5018
91 to 100	18674	806	31.3	924	37.2	910

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74. Includes during 1972-73: Total local and state contributions, basic board and ruled programs, net of state-supported basic program transportation. Includes during 1973-74: Total local-state amounts, estimated basic and voted state-supported programs.

**Coefficient of variation.

TABLE U-3

UTAH SCHOOL DISTRICTS: STATE BASIC AID NET OF TRANSPORTATION AID PER ADA FY 1974 BY RANK OF STATE BASIC AID NET OF TRANSPORTATION PER ADA FY 1973

Non-Cumulative Percent of School Districts by Rank (N = 40)	State Basic Aid Net of Transportation Aid Per ADA* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$395	28.6%	$519	34.7%	6572
0 to 10%	230	19.6	279	37.6	7378
11 to 25	304	7.6	375	14.7	7016
26 to 50	360	4.7	482	7.3	11315
51 to 75	397	4.3	511	10.0	7127
76 to 90	486	10.1	623	17.8	957
91 to 100	642	7.8	930	12.8	280

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74.

**Coefficient of variation.

TABLE U-4

UTAH SCHOOL DISTRICTS: STATE BASIC AID NET OF TRANSPORTATION AID PER ADA FY 1973 AND FY 1974 BY DECILE OF AVERAGE ASSESSED VALUATION 1974 PER ADA FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 40)	Average Assessed Valuation 1973 Per Pupil FY 1974	Average State Basic Aid Net of Transportation Aid Per ADA* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$10217	$395	28.6%	$519	34.7%	6572
0 to 10%	4871	403	8.9	556	10.4	14201
11 to 25	6298	369	3.0	501	2.4	14674
26 to 50	8107	460	28.0	623	31.1	3974
51 to 75	10974	349	30.4	449	40.1	4455
76 to 90	14320	390	26.7	484	32.9	5018
91 to 100	18674	385	52.2	473	68.1	910

*State of Utah, State Board of Education, *Annual Estimated Minimum School Reports of Utah School Districts*, 1972-73, 1973-74.

**Coefficient of variation.

TABLE U-5

UTAH SCHOOL DISTRICTS: TOTAL MAINTENANCE AND OPERATION LEVY FY 1974 BY RANK OF TOTAL MAINTENANCE AND OPERATION LEVY FY 1973

Non-Cumulative Percent of School Districts by Rank (N = 40)	Average Total Maintenance and Operation Levy Per $1000 Assessed Valuation* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$27.89	13.4%	$28.47	12.6%	6572
0 to 10%	21.40	11.9	23.92	8.1	1087
11 to 25	24.06	4.5	25.83	4.2	1260
26 to 50	27.50	3.5	28.25	2.2	6817
51 to 75	28.61	1.2	27.69	12.2	6337
76 to 90	31.18	5.3	31.52	6.4	5931
91 to 100	34.36	2.9	34.91	2.8	20965

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74.
**Coefficient of variation.

TABLE U-6

UTAH SCHOOL DISTRICTS: TOTAL MAINTENANCE AND OPERATION TAX RATES FY 1973 AND FY 1974 BY RANK OF ASSESSED VALUATION 1973 PER ADA FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 40)	Average Assessed Valuation 1973 Per ADA FY 1974	Total Maintenance and Operation Tax Rates Per $1000 Assessed Valuation* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$10217	$27.89	13.4%	$28.47	12.6%	6572
0 to 10%	4871	28.39	1.7	28.39	1.7	14201
11 to 25	6298	28.91	8.8	29.35	8.5	14674
26 to 50	8107	29.66	15.0	29.52	17.4	3974
51 to 75	10974	27.95	9.4	28.97	8.9	4455
76 to 90	14320	26.94	15.0	27.29	14.1	5018
91 to 100	18674	22.71	16.3	25.12	11.8	910

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74.
**Coefficient of variation.

TABLE U-7

UTAH SCHOOL DISTRICTS: ASSESSED VALUATION 1972 PER ADA FY 1973 AND ASSESSED VALUATION 1973 PER ADA FY 1974

Non-Cumulative Percent of School Districts by Rank (N = 40)	Average Assessed Valuation Per ADA* FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average ADA FY 1974
Total	$ 9526	43.2%	$10217	41.3%	6572
0 to 10%	4502	12.2	4871	12.3	14201
11 to 25	5722	6.5	6298	6.2	14674
26 to 50	7508	13.1	8107	11.3	3974
51 to 75	10070	6.0	10974	11.3	4455
76 to 90	13395	9.9	14320	4.8	5018
91 to 100	18141	13.9	18674	15.0	910

*State of Utah, State Board of Education, *Annual Estimated Minimum School Report of Utah School Districts*, 1972-73, 1973-74.
**Coefficient of variation.

TABLE W-1

WISCONSIN UNIFIED SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1974 BY DECILE OF CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1973*

	Average Current Expenditure Net of Transportation per Member				
	FY 1973		FY 1974		
Decile (N=369)	Amount	Variation Index**	Amount	Variation Index**	Average Membership for Aid Purposes FY 1974
Total	$ 791	14.4%	$ 915	14.1%	2,410
1	651	3.2	761	4.7	1,448
2	689	1.2	809	4.8	1,180
3	716	1.1	829	3.1	1,778
4	741	9.4	862	3.9	1,643
5	762	7.9	891	4.0	1,147
6	785	8.9	907	4.9	2,171
7	805	7.4	932	4.2	1,570
8	838	1.8	962	3.5	3,550
9	896	2.5	1,035	5.9	2,362
10	1,031	13.6	1,171	13.7	7,382

*State of Wisconsin, Department of Public Instruction, Computer tape summary of *Annual Report of School Districts*, 1973, 1974. "Current expenditure" includes the following functions: administration, instruction, attendance services, health services, plant operation, plant maintenance, and fixed charges.
**Coefficient of variation.

TABLE W-2

WISCONSIN UNIFIED SCHOOL DISTRICTS: CURRENT EXPENDITURE NET OF TRANSPORTATION PER MEMBER FY 1973 AND FY 1974 BY DECILE OF EQUALIZED VALUATION 1973 PER MEMBER FY 1974*

		Average Current Expenditure Net of Transportation per Member				
		FY 1973		FY 1974		
Decile (N=369)	Average Equalized Valuation 1973 per Member FY 1974	Amount	Variation Index**	Amount	Variation Index**	Average Membership for Aid Purposes FY 1974
Total	$44,601	$791	14.4%	$ 915	14.1%	2410
1	25,625	787	18.9	919	17.1	923
2	30,600	752	10.1	873	11.8	1322
3	33,921	755	10.2	879	9.0	1488
4	30,984	771	9.9	888	10.5	1498
5	40,095	766	11.2	897	11.9	2420
6	43,395	785	11.5	906	11.1	2435
7	46,556	799	12.5	921	12.9	5656
8	50,567	770	8.4	899	8.7	3116
9	56,553	824	12.7	937	12.8	3075
10	83,117	900	20.9	1,039	19.9	2210

*State of Wisconsin, Department of Public Insyruction, Computer tape summary of *Annual Report of School Districts*, 1973, 1974 "Current Expenditure" includes the following functions: administration, instruction, attendance services, health services, plant operation, plant maintenance and fixed charges.
**Coefficient of variation.

TABLE W-3

WISCONSIN UNIFIED SCHOOL DISTRICTS: STATE GENERAL AID PER MEMBER FY 1974 BY DECILE OF STATE GENERAL AID PER MEMBER FY 1973*

Average State General Aid Per Member

Decile (N=369)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership for Aid Purposes FY 1974
Total	$309	49.4%	$498	36.1%	2410
1	74	13.5	160	40.6	2903
2	121	21.4	315	17.8	3576
3	192	9.4	401	9.5	5721
4	239	5.4	440	14.1	1980
5	287	5.2	483	7.2	3124
6	339	3.2	540	6.7	1789
7	380	3.7	593	4.9	1832
8	419	2.3	620	5.0	1160
9	463	3.7	663	5.1	1126
10	580	14.8	775	17.0	845

*State of Wisconsin, Department of Public Instruction, Computer tape summary of *Annual Report of school Districts*, 1973, 1974. "Member" is defined as "member for aid purposes."
**Coefficient of variation.

TABLE W-4

WISCONSIN UNIFIED SCHOOL DISTRICTS: STATE GENERAL AID PER MEMBER FY 1973 AND FY 1974 BY DECILE OF EQUALIZED VALUATION 1973 PER MEMBER FY 1974*

Average General Aid per Member

Decile (N=369)	Average Equalized Valuation 1973 per Member FY 1974	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership for Aid Purposes FY 1974
Total	$44,601	$309	49.4%	$498	36.1%	2410
1	25,265	535	23.0	755	17.1	923
2	30,600	467	13.5	664	10.4	1322
3	33,921	413	12.8	620	8.5	1488
4	36,894	378	16.1	586	10.2	1498
5	40,095	346	15.0	547	11.0	2420
6	43,395	283	17.0	485	10.1	2435
7	46,556	247	19.9	452	10.2	5656
8	50,657	186	26.9	385	10.1	3116
9	56,553	147	55.8	325	16.9	3025
10	83,117	77	20.8	154	40.5	2210

*State of Wisconsin, Department of Public Instruction, Computer tape summary of *Annual Report of School Districts*, 1973, 1974.
**Coefficient of variation.

TABLE W-5

WISCONSIN UNIFIED SCHOOL DISTRICTS: SCHOOL OPERATION TAX LEVY FY 1974 PER $1000 EQUALIZED VALUATION 1973 BY DECILE OF SCHOOL OPERATION TAX LEVY FY 1973 PER $1000 EQUALIZED VALUATION 1972*

Average School Operation Levy Per $1000 Equalized Valuation

Decile (N=369)	FY 1973 Amount	FY 1973 Variation Index**	FY 1974 Amount	FY 1974 Variation Index**	Average Membership for Aid Purposes FY 1974
Total	$15.31	15.3%	$11.46	19.5%	2,410
1	11.08	14.3	9.39	22.8	1,298
2	13.19	2.7	10.11	15.0	1,916
3	14.13	1.4	10.72	14.2	1,247
4	14.65	1.0	10.67	16.4	2,152
5	15.06	0.8	11.21	14.2	2,126
6	15.54	0.8	11.65	16.5	2,405
7	15.99	0.9	11.54	12.7	1,404
8	16.61	1.0	12.28	14.3	3,798
9	17.42	1.8	12.64	13.3	2,211
10	19.53	9.8	14.50	17.6	5,628

*State of Wisconsin, State Department of Public Instruction, Computer tape summary of *Annual Report of School Districts*, 1973, 1974.
**Coefficient of variation.

TABLE W-6

WISCONSIN UNIFIED SCHOOL DISTRICTS: SCHOOL OPERATION TAX LEVY FY 1973 AND FY 1974 BY DECILE OF EQUALIZED VALUATION 1973 PER MEMBER FY 1974*

Average School Operation Tax Levy Per $1000 Equalized Valuation

Decile (N=369)	Average Equalized Valuation 1973 per Member FY 1974	FY 1973** Amount	FY 1973** Variation Index***	FY 1974** Amount	FY 1974** Variation Index***	Average Membership for Aid Purposes FY 1974
Total	$44,601	$15.31	15.3%	$11.46	19.5%	2,410
1	25,675	14.41	25.4	10.81	29.3	923
2	30,600	15.50	13.8	10.91	22.5	1,322
3	33,921	14.74	12.7	10.61	17.4	1,488
4	36,984	15.28	11.9	11.23	15.8	1,498
5	40,095	15.39	14.0	11.56	16.7	2,420
6	43,395	15.73	11.5	11.28	16.8	2,435
7	46,556	16.03	14.2	11.72	16.3	5,656
8	50,657	15.29	9.9	11.75	14.7	3,116
9	56,553	16.50	11.5	12.48	15.0	3,025
10	83,117	14.21	19.7	12.31	23.1	2,210

*State of Wisconsin, Department of Public Instruction, computer tape summary of *Annual Report of School Districts*, 1973, 1974.
**Calendar 1972 equalized valuation used to compute FY 1973 tax rate, calendar 1973 equalized valuation used to compute FY 1974 tax rate.
***Coefficient of variation.

TABLE W-7

WISCONSIN UNIFIED SCHOOL DISTRICTS: EQUALIZED VALUATION 1973 PER MEMBER FY 1974 BY DECILE OF EQUALIZED VALUATION 1972 PER MEMBER FY 1973*

Average Equalized Valuation

Decile (N=369)	1972 per Member FY 1973		1973 per Member FY 1974		Average Membership for Aid Purposes FY 1974
	Amount	Variation Index**	Amount	Variation Index**	
Total	$34,590	41.4%	$44,601	41.2%	2,410
1	18,553	16.2	26,658	27.1	913
2	22,975	2.5	31,025	7.8	1,053
3	25,460	3.8	33,866	5.8	1,314
4	28,181	2.6	36,790	8.1	1,543
5	30,848	3.0	40,092	5.8	1,791
6	34,049	2.5	43,956	6.4	3,296
7	36,780	2.0	46,199	11.0	2,187
8	40,102	3.1	49,953	8.9	5,642
9	44,792	3.8	55,690	8.0	3,731
10	64,987	33.7	82,609	38.4	2,633

*State of Wisconsin, Department of Public Instruction, computer tape summary of *Annual Report of School Districts*, 1973, 1974.
**Coefficient of variation.

Appendix B

Computer Simulations in School Finance Reform

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School finance computer simulations permit a state legislator to assess the fiscal impact of a variety of comprehensive school finance programs. School finance today is becoming an increasingly complicated public policy issue. Recently enacted finance reforms have incorporated a variety of important new elements: comprehensive pupil weighting systems, complex local expenditure and tax limits, declining enrollment cushions, alternative measures of school district wealth including sensitivity to personal income. In short, a new sophistication characterizes modern day school finance activities.

The broadening of the issues related to public school finance makes it difficult for the legislator or any person not trained in school finance to understand fully the intricacies of school finance reform. Not only is the impact of a school finance reform difficult to predict statewide, but the numerous elements built into the new programs make it almost impossible to know, without the aid of computer models, how a proposed new or revised policy affects each school district in the state as well as what it costs the state to implement it.

The development of state focused school finance computer simulations is important for a number of reasons. First—and foremost—legislators need to know the fiscal impact of new school finance policies. Major changes in the financial structure of education have significant fiscal implications for both state and local budgets. School finance simulations take some of the mystery out of school finance proposals and let the legislator make policy decisions based on sound fiscal analysis.

Legislators need to know not only the impact of a potential new school finance policy but also how a new proposal solves the problems associated with the old program. Too often in the past expensive school finance changes have occurred with little or no improvement in the basic structure. School finance simulations can be designed to indicate clearly how the simulated school finance structure diminishes (or does not diminish) the inequities in the old structure and thus help to insure that new policies are advances on what they replace.

Well designed simulations also enable the legislator to assess a wider variety of school finance plans than would be possible without the aid of high speed computers. Thus the number of policy options which can be analyzed is greatly expanded. This broader testing of possibilities means that the policy actually adopted will be the best of many.

Last, the development of a sophisticated and comprehensive school finance simulation has an important by product—the creation of an in-depth, policy oriented school finance data base. To develop a simulation, a vast array of data is required. The needed data are usually fragmented among various divisions of the state department of education, the many sections of the tax and revenue department and numerous other state agencies. The development of a simulation not only produces a comprehensive data base but also produces a procedure for obtaining and updating the data base on a yearly basis. Such data gathering allows for yearly evaluations of a school finance program as well as annual fine tunings of the system.

In short, a school finance computer simulation is a needed tool in modern day school finance reform. The remainder of this appendix is divided into two sections. The first discusses in detail what school finance simulations are, what they can do and how they have been used in a number of states. Included in this section is a discussion of the school finance simulation that has been developed by the Education Finance Center of the Education Commission of the States for the legislature in the State of South Dakota. The second section discusses some shortcomings of school finance simulations and also lists elements that should be included in simulations developed within the next few years.

What is a School Finance Simulation?

School finance simulations need to be developed individually for each state. Although there have been attempts to develop a universal simulation, in actual fact, such simulations can not be used in any particular state without extensive revision and modification. School finance structures are so different among the fifty states that it is easier to develop a new simulation for each state than to rework a simulation developed for another state or to modify a universal simulation. However, each newly developed simulation utilizes substantially the knowledge discovered and methodologies used in developing those simulations that preceeded it.

Few policy analytic school finance simulations have been created. One was developed in California for a Senate Select Committee in 1972. The National Education Finance Project's universal simulation was modified in 1973 for use in Florida by Dr. Walter Garms of Rochester University, who, in 1974, designed a simulation for the state of Oregon. School finance simulations have also been developed for Connecticut and South Dakota by Allan Odden, director of the ECS Education Finance Center, and for Massachusetts by the Legislators' Education Action Project of the National Conference of State Legislatures.

A simulation indicates the impact of a proposed school

finance structure on expenditures, school tax rates and state aid for all school districts in a state, as well as the impact statewide, especially increases (or decreases) in state aid. In addition, a fully developed simulation gives the impact of the simulated program on the inequities in the old program, the probable legislative vote on the simulated program and, in future simulations, the tax incidence implications of the simulated plan.

A school finance simulation is composed of three main components: a school finance data base, a set of decision variables, and a computer program which models various school finance structures and produces the printed output of a particular simulation run.

The data base consists of a variety of different categories of variables. These include:

1) fiscal data, including educational expenditures by category, state and federal aid by category, income information, assessed valuation, assessment ratio and tax rate data;

2) pupil characteristics data, including enrollment by grade level, enrollment in special education by type of handicap, enrollment in vocational education by type of program, enrollment by poverty or welfare status, and achievement and ethnic information;

3) teacher characteristic data, including number of teachers, average teacher salaries, teacher experience and other relevant and variable teacher information;

4) school district socio-economic data, including school district education, ethnic, economic and housing stock information.

The scope and magnitude of the decision variables, the second component of a school finance simulation, determine the flexibility of the simulation as well as the degree to which it can be used to assess policy options. The core decision variables pertain to the basic type of state aid equalization programs which can be simulated. These should include: full state assumption programs, foundation programs, guaranteed tax base (or power equalizing) programs, flat grant programs and combinations of these. Decisions should also be built in for pupil weightings systems that include grade level differences, special education, vocational education, compensatory education, sparsity and necessary small schools. A well designed simulation should allow the use of a variety of measures of school district wealth, including assessed valuations per pupil and per capita, per capita income and median family income, as well as combinations of these. Additional special options would include: recapture provisions, hold harmless clauses, statewide taxation of non-residential property, declining enrollment cushions, limitations on expenditures, state aid or tax rates, and others as might be appropriate for a particular state.

Most simulations have been written in the FORTRAN computer language. The mathematical models that are utilized in the school finance simulations are easily programmed with FORTRAN as are the output formulations. Although FORTRAN is a common computer language, the particular format of some commands vary with the type of computer system utilized. In some instances, therefore, minor programming changes may be necessary to adapt a simulation developed on one computer for use on another.

The printed output of a computer simulation, although seemingly straight-forward, must be presented in a readable and esthetically pleasing manner. In too many instances, the results of computer modeling programs are presented in a manner which makes it difficult for even the expert to read. Not only can the reader be inundated with numbers but unless the numbers are clearly organized and labeled, the reader may not be able to tell which numbers are located on what parts of the printed sheet. In short, the importance of the "cosmetics" of presenting the printed output of a school finance simulation should not be underestimated.

The attachments at the end of this chapter present some sample output of the simulation that was developed for the legislature in the State of South Dakota. The cover page, Attachment 1, indicates what elements were part of the particular simulation run. For the run presented, a foundation program with a guaranteed tax base (power equalized) add-on option was simulated. Extra cost factors (pupil weightings) for grades 1 and 2, special education, sparsity and small schools were included. An income component was attached to the wealth measure, an expenditure cap was mandated, assessed valuations were adjusted to the statewide average, a declining enrollment cushion was included and a hold-harmless provision for state aid was added. In a brief but readable manner, the cover sheet indicates the important elements of the simulated program.

The second page of the output, Attachment 2, gives the state totals and state averages for the simulated program. The first row gives the state average for the simulated expenditures per pupil, local property tax rates and state aid, as well as the increases in those variables. The second row gives the simulated totals for various pupil weighting categories, including the weighted and unweighted pupil counts. The next line, in very clear fashion, states the additional cost of the program while the last few lines indicate the impact of the simulated program on expenditure disparities. This type of summary page presents in an uncluttered and readable format the important aggregate impact of the simulated program.

Attachments 3 through 6 present simulated and actual data by various groupings of the school districts. Attachment 3 groups school districts by quintiles of per pupil property wealth, Attachment 4 lists the ten wealthiest and ten poorest school districts, Attachment 5 categorizes school districts by size of enrollment and Attachment 6 by type of jurisdiction. Expenditure, tax rate, state aid and property wealth information is given for all four groupings.

These four groupings of school districts, along with the data presented, represent some basic ways school district data can be arranged to indicate inequities in the school finance structure. In fact, the actual figures in these four charts reveal the problems in the old structure. The simulated figures, therefore, show how the simulated school finance program solves those problems.

For example, Attachment 4 shows that the actual state aid to the ten poorest districts was $255 per pupil, $57 *less than* that ($312) for the ten wealthiest districts. In addition, the non-agricultural tax rate for the ten poorest

districts was 41.99 mills, 16.03 mills higher than that (25.96 mills) for the ten wealthiest districts. The simulated figures show that these inequities were significantly changed by the simulated program. While the figures for the wealthiest districts remained essentially unchanged, state aid to the poorest districts increased from $255 to $504 per pupil, expenditures increased from $922 to $1069 per pupil and the non-ag tax rate decreased from 41.99 to 33.00 mills.

Few school finance simulations printout charts such as those in Attachments 3 to 6 but all of them should. Legislators need to know the effectiveness of a proposed school finance reform in eliminating problems in the old system. These charts give the legislator that needed data.

Attachment 7 shows how the simulated school finance program impacts each individual school district. Only the basic data are given: expenditures, tax rates and state aid. These variables are the important ones. More numbers would be confusing rather than helpful. The numbers are clearly labeled by column headings that are written in English and not computereze. *Computer program variable names have no place on a simulation printout.* It makes good sense to write out "expenditures per pupil" rather than print the variable abbreviation EXPP or COEXP and hope readers can guess what is meant. Finally, it is also wise to limit the number of school districts that appear on any one page. Cramming as many school districts as possible on one page does save paper but is confusing and tends to bury readers in data rather than inform them about the impact of a simulated school finance plan.

These pages from the South Dakota simulation are, of course, only examples of how simulation output can be presented. But they do show that school finance information related to a complicated school finance program can be meaningfully presented in an understandable format that can be easily read by a state legislator, which is, after all, the major purpose for having the simulation.

Limitations of and Needed Research for School Finance Simulations

A major limitation of current simulations is their inability to predict precisely what a school district will do, in terms of tax rate and expenditure changes, when faced with a new type of state aid program for education. Public finance research has not yet developed a general and valid response model that can be used in simulations. Thus, simulations now indicate the range of possible responses and often assume a median response by all school districts. The median response gives fairly accurate statewide information but may over-or underestimate slightly the situation for particular school districts. Developing a general response model should be a high priority for school finance researchers.

Current simulations are also limited in their ability to predict reform effects for more than one year. Although both the Oregon and newly designed California simulations can forecast over a five year period, after the first year the numbers become less and less reliable. A forecasting capability is especially useful because most new school finance plans are phased in over a number of years. The ability to predict accurately the year by year impact of such phased-in programs would be highly useful to state lawmakers.

In addition, no simulation has included in its modeling techniques the effect of land value capitalization. Economic research clearly shows thag decreases in tax rates and increases in school expenditures increase the value of real property. In some cases capitalization may be a very important side-effect of a school finance reform. The development of future simulations should attempt in some way to include the capitalization phenomenon in their modeling programs.

At the present time, no school finance simulation includes a tax model which indicates the shifting of the state and local tax burden by income class resulting from an education finance reform. In the past, the focus of school finance reform has been on school children and that focus should remain paramount. But structural alterations in the way schools are financed, which include local property tax relief as well as increases in statewide taxes, can produce significant changes in tax burdens for taxpayers. These shifting tax burdens also merit attention and analysis. Future simulations should include a tax model which shows how a simulated school finance reform shifts the tax burden, by school district as well as statewide.

Finally it is necessary to indicate what is not a school finance simulation. Many states have computer facilities which are used to calculate annual state aid payments for their school funding formulas. Such computerization represents major advances over hand calculations. Some states can even vary the program somewhat, i.e., by increasing the value of one or two variables. Although these computer capabilities are desired and valuable, they require major programming changes to calculate information for funding programs not closely linked to the existing state program. Such computer systems have important, but limited utility and should not be considered school finance simulations.

In summary, very few states now possess the simulation capability described above, which lets a policy maker assess many different types of school funding formulas with a variety of special options, simply by changing the values of decision variables. In this modern era of school finance reform, such flexible computer simulations are becoming increasingly necessary policy analysis tools.

ATTACHMENT 1
SOUTH DAKOTA STATE SCHOOL FINANCE SIMULATION
EDUCATION FINANCE CENTER
RESEARCH AND INFORMATION SERVICES DEPARTMENT
EDUCATION COMMISSION OF THE UNITED STATES
Designed and Programmed by Allan Odden and Judy Bellows

Foundation Program	
Foundation Expenditure ($/Pupil)	775.00
Required Local Non-Agricultureal Tax Effort (Mills)	28.00
Guaranteed Tax Base for Add-On ($/Mill/Pupil)	20.00
Extra Cost Factors:	
Grade Level Differences	
Kindergarten	0.
Grade 1	.100
Grade 2	.100
Grade 3	0.
Grade 4	0.
Grade 5	0.
Grade 6	0.
Grade 7	0.
Grade 8	0.
Grade 9	0.
Grade 10	0.
Grade 11	0.
Grade 12	0.
Special Education	
Deaf	.150
Speech	.150
Physically Handicapped	.150
Behaviorally Handicapped	.150
Visually Handicapped	.150
Mentally Retarded	.150
Learning Handicapped	.150
Gifted/Talented	.150
Multiply Handicapped	.150
Extra Cost Factor for School Districts	
With Less than 1.00 pupils per square mile	.040
Extra Cost Factor for School Districts	
With Less Than 300 Pupils	.030
The Property Tax Will Be Sensitized to Income	
Maximum Expenditures Above $1100 (%)	15.00
The Uniform Statewide Average Will Be Used to Adjust Assessed Valuations	
The Current Flat Grant Will Be Eliminated	
The ADM for School Districts With Declining Enrollments Will Be the Average of the Preceding Three Years.	
Equalization State Aid and Flat Grant Aid Will Be Held Harmless For All School Districts	

School District Response Model

1 = Maintain current tax rate
2 = Tax rate necessary to maintain current expenditure levels
3 = Mean of the above two
4 = Option 3 for districts with a tax base less than that guaranteed by the state
Option 2 for districts with a tax base greater than that guaranteed by the state

ATTACHMENT 2

STATE TOTALS AND AVERAGES
FOUNDATION PROGRAM WITH GTB ADD-ON

Simulated State Average Expenditures Per Pupil	Simulated State Average Expenditures Per Weighted Pupil	Increase in State Average Expenditures Per Pupil	Increase in State Average Expenditures Per Weighted Pupil	Simulated State Average Tax Rate AG	Simulated State Average Tax Rate Non-Ag	Increase in State Average Tax Rate Ag	Increase in State Average Tax Rate Non-Ag	Simulated State Aid Total	Increase in State Aid Total
1078	1030	112	107	20.92	33.85	—2.00	—3.99	59386060	29562261

Simulated Aid for Education	Increase in Aid for Education	Simulated Aid for Vocational Education	Increase in Aid for Vocational Education	Simulated Aid for Weightings	Simulated Aid for Education	Average Daily Membership	Weighted Average Daily Membership
3502698	3042501	0	0	1772271	0	154123	161301

The Total Additional Cost of This Program Is: $29562261

For This Program the Per Pupil Expenditure of the School District at the

5th Percentile: Herreid	$ 955
25 Percentile: Marion	1028
50th Percentile: Hill City	1098
75th Percentile: Roscoe	1193
95th Percentile: Isabel	1523

ATTACHMENT 3

IMPACT OF THE SIMULATED SCHOOL FINANCE PROGRAM BY QUINTILES OF WEIGHTED ADJUSTED ASSESSED VALUATION PER PUPIL FOR THE 1973-74 SCHOOL YEAR

Foundation Program with GTB Add-On

	Simulated Expenditure		Actual Expenditure		Simulated Tax Rate (Mills)		Actual Tax Rate (Mills)		Simulated State Aid		Actual State Aid	
Quintile	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil	Ag	Non-Ag	Ag	Non-Ag	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil
First	$1129	$1072	$ 980	$ 931	20.21	32.41	24.72	41.43	479	455	240	228
Second	1116	1063	987	940	21.47	34.95	24.53	41.05	432	412	219	209
Third	1091	1035	1008	957	21.80	35.60	23.46	38.91	338	321	203	193
Fourth	1113	1052	1069	1010	21.63	35.26	22.48	36.97	271	257	202	191
Fifth	1266	1168	1252	1155	19.51	31.02	19.42	30.83	215	198	211	194
State Average	$1078	$1030	$ 966	$ 923	20.92	33.85	22.92	37.84	347	329	215	203

ATTACHMENT 4

IMPACT OF THE SIMULATED SCHOOL FINANCE PROGRAM ON THE SCHOOL DISTRICTS WITH THE TEN LOWEST AND TEN HIGHEST PROPERTY WEALTH FOR THE 1973-74 SCHOOL YEAR

Foundation Program with GTB Add-On

	Simulated Expenditure		Actual Expenditure		Simulated Tax Rate (Mills)		Actual Tax Rate (Mills)		Simulated State Aid		Actual State Aid	
	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil	Ag	Non-Ag	Ag	Non-Ag	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil
Ten Lowest School Districts in Property Wealth												
Big Stone City	$ 947	$ 888	$ 795	$ 745	23.10	38.19	30.21	52.41	578	542	275	258
Browns Valley	1112	1041	966	904	18.76	29.52	24.42	40.85	502	470	249	233
Gary	1174	1098	1013	947	22.05	36.10	25.84	43.67	587	549	340	318
Waverly	1008	947	891	837	21.42	34.84	24.28	40.57	468	440	275	258
Harrisburg	1039	1001	882	850	21.36	34.72	27.16	46.33	533	513	253	243
Hot Springs	1105	1064	972	937	19.91	31.82	24.75	41.51	477	460	226	217
McLaughlin	1298	1201	1125	1041	18.00	28.00	20.27	32.54	469	434	243	225
Colman	1000	962	863	831	19.68	31.37	21.37	34.73	413	398	231	222
Ethan	1036	966	884	825	20.98	33.95	25.76	43.52	506	472	240	224
Lennox	976	940	827	798	19.72	31.44	25.87	43.75	505	487	218	210
Average	$1069	$1011	$ 922	$ 871	20.50	33.00	24.99	41.99	504	477	255	241
Ten Highest School Districts in Property Wealth												
Forestburg	$1549	$1396	$1549	$1396	24.67	41.35	24.67	41.35	345	311	345	311
Bison	1313	1215	1313	1215	19.40	30.81	19.40	30.81	196	181	196	181
Fairview	1257	1148	1257	1148	18.20	28.41	18.20	28.41	287	262	287	262
Northwest	1490	1342	1490	1342	18.96	29.92	18.96	29.92	429	386	429	386
Harding	1527	1414	1527	1414	13.00	18.01	13.00	18.01	326	301	326	301
Oelrichs	1439	1294	1439	1294	15.80	23.61	15.81	23.61	425	382	425	382
Hoven	1402	1300	1220	1132	14.21	20.41	15.00	22.01	221	205	221	205
Draper	1723	1556	1723	1556	13.89	19.78	13.89	19.78	239	215	239	215
Sully Superimposed	1882	1703	1882	1703	14.73	21.47	14.74	21.47	269	243	269	243
Elk Mountain	1854	1669	1854	1669	16.12	24.34	16.12	24.24	381	343	381	343
Average	$1544	$1404	$1525	$1387	16.90	25.80	16.98	25.96	312	283	312	283
State Average	$1078	$1030	$ 966	$ 923	20.92	33.85	22.92	37.84				

ATTACHMENT 5

IMPACT OF THE SIMULATED SCHOOL FINANCE PROGRAM BY SIZE OF SCHOOL DISTRICT FOR THE 1973-74 SCHOOL YEAR

FOUNDATION PROGRAM WITH GTB ADD-ON

	Simulated Expenditure		Actual Expenditure		Simulated Tax Rate (Mills)		Actual Tax Rate (Mills		Simulated State Aid		Actual State Aid	
District ADM	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil	AG	Non-Ag	AG	Non-Ag	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil
0-299	$1251	$1156	$1195	$1103	21.58	35.15	22.95	37.89	340	316	252	233
300-499	1105	1051	1028	978	20.53	33.07	22.19	36.37	323	309	205	195
500-999	1085	1033	987	940	20.25	32.50	22.09	36.18	331	316	190	181
Over 1000	1078	1035	947	910	21.30	34.60	25.40	42.80	427	410	196	188
State Average	1078	1030	966	923	20.92	33.85	22.92	37.84	347	329	215	203

ATTACHMENT 6

IMPACT OF THE SIMULATED SCHOOL FINANCE PROGRAM ON LARGE CITY, SUBURGAN, AND NON-METROPOLITAN SCHOOL DISTRICTS FOR THE 1973-1974 SCHOOL YEAR

FOUNDATION PROGRAM WITH GTB ADD-ON

	Simulated Expenditure		Actual Expenditure		Actual Tax Rate (Mills)		Tax Rate (Mills)		Simulated State Aid		Actual State Aid	
	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil	AG	Non-Ag	AG	Non-Ag	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil
Large City School Districts	$ 009	$ 972	$ 883	$ 851	21.53	35.06	25.96	43.93	416	401	170	163
Suburban School Districts	1029	976	913	866	20.49	32.97	24.03	40.07	396	377	204	194
Non Metropolitan School Districts	1151	1085	1069	1007	20.94	33.88	22.83	37.65	344	325	216	204
State Average	1078	1030	966	923	20.92	33.85	22.92	37.84	347	329	215	203

ATTACHMENT 7

IMPACT OF THE SIMULATED SCHOOL FINANCE PROGRAM ON INDIVIDUAL SCHOOL DISTRICTS BY COUNTY

School District	Simulated Expenditure		Increase in Expenditure		Simulated Tax Rate (Mills)		Increase in Tax Rate (Mills)		Simulated State Aid	Increase in State Aid
School District	Per Pupil	Per Weighted Pupil	Per Pupil	Per Weighted Pupil	AG	Non-Ag	AG	Non-Ag	Total	Total
Aurora										
Plankington	1049	1007	0	0	20.02	32.04	0.	0.	52020	0
Stickney	987	950	154	148	20.66	33.32	—2.66	—5.32	166850	86063
White Lake	1094	1054	68	66	22.43	36.86	—1.37	—2.74	91832	35130
Beadle										
Huron	1008	971	135	130	21.91	35.82	—3.81	—7.63	1563326	855015
Wessington	1360	1227	0	0	22.16	36.33	0.	0.	42786	0
Wolsey	1130	1086	12	12	21.98	35.96	— .27	— .53	83772	7805
Hitchcock	1290	1161	0	0	18.62	29.24	0.	0.	40626	0
Iriquois	1102	1060	0	0	23.29	38.79	0.	0.	82351	0
Bennett										
Bennett	1312	1215	145	135	18.00	28.00	.12	.23	259095	119025
Bon Homme										
Avon	985	950	78	75	21.96	35.93	—1.63	—3.26	150168	53648
Scotland	1150	1106	94	90	22.93	37.85	—1.93	—3.86	255312	105343
Bon Homme	1175	1132	152	147	21.63	35.26	—3.23	—6.46	464641	252888
Brookings										
Brookings	1113	1075	112	108	22.95	37.90	—2.98	—5.97	973855	558484
Elkton	1002	966	90	87	21.13	34.26	—2.19	—4.37	133540	58560
Sioux Valley	1082	1043	134	129	21.57	35.14	—3.24	—6.47	293971	146066
Lake Hendricks	940	881	90	84	21.81	35.61	—2.12	—4.25	12752	7037
Deubrook	1066	1026	154	148	22.52	37.03	—3.72	—7.44	187529	99029